

TAWJIHI

المسار الثانوي المهني الشامل

Unit Four

قطع القراءة والكلمات

مع تمارين مكثف

PREPARED BY

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طبيعة أسئلة الوزارة على نصوص القراءة (النظام القديم)

كيفية الأجابة على أسئلة نصوص القراءة في امتحان الوزارة :

1. إذا كان في السؤال

write down two / three / four

فهذا يعني عدد نقاط . نبحث في النص عن

(and, also, as well as, in addition, or, beside, moreover)

ويكون عدد الأسئلة سؤالان.

2. What does the underlined word, pronoun "....." refer to?

على ماذا يعود الضمير أو الكلمة؟ (سؤال عن الضمائر)

3. Find a word from the text that means "English meaning"

هنا نبحث عن الكلمة من النص ويكون الطالب قد حفظ معاني الكلمات

4. سؤال الاقتباس، العبارات التي تدل على سؤال الاقتباس هي:

(write down the sentence, quote the sentence, which part of the text tells you ...)

نكتب عبارة الاقتباس كاملة حتى النقطة .

5. سؤال التفكير الناقد critical thinking:

عليك أن تقترح ثلاث نقاط حول فكره معينه ، وهذه الفكرة تكون إما على عنوان الوحدة أو على النص نفسه. يمكنك أن تستخدم

عبارات أو كلمات من النص لتساعدك في كتابة رأيك .

أسئلة الوزارة (الأسئلة الموضوعية - ضع دائرة) - عليك معرفة ومراعاة ما يلي

1. القسم الأول في الامتحان هو القراءة وهو مكون من سبعة اسئلة جميعها اختيار من متعدد .

READING: For questions (), read the following texts carefully, and then choose the correct answer from A,B,C or D to complete the sentence below each text.

2. يتم اعطائك اربعة خيارات لكل سؤال واحد صحيح والباقي خطأ ، التركيز على الفكرة الرئيسية في السؤال .

3. يكون من خلال الاسئلة معنى كلمة .

4. اذا كان من بين الاسئلة سؤال صح ام خطأ (TRUE/FALSE) فيتم التعامل معه بناءً على معلومات الفقرة أو النص المعطى حيث نركز على الأرقام والنسب والتواريخ ، بحيث اذا تطابقت نضع صح ويكون الخيار أ بالماسح الضوئي ، واذا لم يتطابق نضع خطأ الخيار ب بالماسح الضوئي .
5. يكون من بين الاسئلة سؤال عن ضمير.
6. يرد سؤال عن المتلازمات **collocations** فيجب حفظها .

When Mr Rashed met the company director, he shook with him gently.

- A) Talk
B) A joke
C) A deal
D) hands

7. تكون نصوص القراءة مقتبسة من أكثر من نص من الكتاب وليس نصاً واحداً فقط ، لذلك عليك قراءة وفهم جميع القطع.



الوحدة الرابعة – قصص نجاح

Success Stories : قصص نجاح

كتاب الطالب صفحة (٦) تاريخ الكمبيوتر

No.	The word	Meaning	English meaning
1	Arithmetic n.	الحساب	the study of numbers
2	Geometry	الهندسية	The study of relationships and measurement of points, lines, curves and surfaces

3.	Mathematician	عالم رياضيات	A person who studies Mathematics to a very complex level
4.	Philosopher	فيلسوف	Someone who studies and writes philosophy professionally
5.	Physician	فيزيائي	Someone qualified to practice medicine, (a doctor)
6.	Polymath	متعدد الثقافة	Someone who has a lot of knowledge about many different subjects (expert)
7.	Talent	موهبة	Special ability
8.	Founder	مؤسس	The person who starts something new, such as an organization or a city.
9.	Scale	مقياس	An instrument to measure weight
10.	Laboratory	مختبر	A room for scientific experiment
11.	Ground-breaking	جديد	New

The importance of Islamic achievements in history

أهمية الانجازات الاسلامية عبر التاريخ

Jabir ibn Hayyan (born 722 CE, died 815 CE) The Arab world has many famous chemists in **its** history, but the person **who** is known as the founder of chemistry is probably Jabir ibn Hayyan.

العالم العربي لديه العديد من الكيميائيين المشهورين في التاريخ ، ولكن الشخص المعروف بمؤسس علم الكيمياء هو على الأرجح جابر بن حيان

Its: the Arab world – **who:** the person

He is most well known for the beginning of the production of sulphuric acid.

انه الاكثر شهرة لأنه من بدأ انتاج حامض الكبريت

He: Jabir ibn Hayyan

He also built a set of scales **which** changed the way in **which** chemists weighed items in a laboratory: **his** scales could weight items over 6.000 times smaller than a kilogram.

ووضع جابر بن حيان موازين غيرت الطريقة التي كان الكيميائيون يزنون الاشياء بها في المختبر . فموازينه امكناها ان تزن اشياء وزنها اقل من ٦٠٠٠ ضعف الكيلو غرام.

He/his : Jabir ibn Hayyan – **which:** a set of scales - **which:** the way

Ali ibn Nafi ' (Ziryab) (born 789 CE, died 857 CE) Ali ibn Nafi ' is also known as 'Ziryab' (or 'Blackbird', because of **his** beautiful voice). **He** was a gifted pupil of a famous musician from Baghdad, and **it** was **his** talent (موهبة) for music that led **him** to Cordoba in the ninth century CE. **He** was the guest of the Umayyad ruler there. **He** is the person **who** established the first music school in the world in Cordoba, Al-Andalus, teaching musical harmony (إيقاع) and composition (تأليف المقطوعات الموسيقية). **He** revolutionized musical theory, and is also the person **who** introduced the oud to Europe.

علي ابن النفيس المعروف بزرياب او الطائر الاسود لجمال صوته ، الشخص الموهوب بالموسيقى من بغداد وموهبته في الموسيقى قادته الى قرطبة في القرن التاسع ، نزل بضيافة الحاكم الاموي ، وهو اول شخص اسس مدرسة للموسيقى في الاندلس / قرطبة وتعلم العزف وتاليف المقطوعات الموسيقية ، وطور النظرية الموسيقية وهو ايضاً الشخص الذي ادخل العود الى اوروبا .

His/he/his/him/he/he/he: Ali ibn Nafi - **who, who:** the person (Ali ibn Nafi) - **it:** that led him to Cordoba in the ninth century CE.

Fatima al-Fihri (born early 9th century, died 880 CE) Fatima al-Fihri was the daughter of a wealthy businessman. **She** used **her** father's inheritance (إرث) to build a learning centre in Fez, Morocco. This learning centre became Morocco's top university, and **it** is **where** many students from all over the world come to study. Moreover, it was Fatima's sister, Mariam, **who** supervised the building of the Andalus Mosque, **which** was not far from the learning centre.

فاطمه الفهري كانت ابنة رجل أعمال ثري . استعملت ميراث والدها في بناء مركز تعليمي في مدينة فاس في المغرب ، وهذا المركز اصبح اشهر جامعة في المغرب حيث العديد من الطلاب من كل انحاء العالم يأتون للدراسة ، علاوة على ذلك كانت اخت فاطمه وهي مريم التي اشرفت على بناء مسجد الاندلس الذي لم يكن بعيداً عن المركز التعليمي.

She,her: Fatima al-Fihri - **it:** this learning center - **where:** Morocco's top university – **who:** Mariam – **which:** the Andalus Mosque

Al-Kindi (born around 801 CE, died 873 CE) Al-Kindi was a physician, philosopher, mathematician, chemist, musician and astronomer – a true polymath (متعدد العلوم والثقافات). **He** made ground-breaking discoveries in many of **these** fields, but **it** is probably **his** work in arithmetic and geometry **that** has made him most famous.

كان الكندي فيزيائياً فيلسوفاً وعالم رياضيات وكيميائياً وموسيقاراً وعالم فلك . وهو بالفعل متعدد العلوم والثقافات .
حقق اكتشافات جديدة في العديد من هذه الحقول ، لكن عمله في الحساب والهندسية هي من جعلته الاكثر شهرة .

He, his, him: Al-Kindi - **it:** his work in arithmetic and geometry - **that:** his work in arithmetic and geometry

Comprehension / SB P. 29

4 / summaries the achievements of the four people in the text.

1. Jabir ibn Hayyan is known as the founder of chemistry. He began the production of sulphuric acid and invented scales that could weigh very light things.
2. Ali ibn Nafi' established the first music school in the world in Cordoba, Al-Andalus, and introduced the oud to Europe.
3. Fatima al-Fihri built a learning centre in Morocco, which became a world famous university.
4. Al-Kindi was a polymath, most famous for his work in arithmetic and geometry.

Questions: قد يتغير نمط السؤال الى اختيار من متعدد

1. How old was Jabir Ibn Hayyan when he died?
2. In which field was Jabeir Ibn Hayyan famous for?
3. There are many important achievements of Jabir Ibn Hayyan. Write down two of these achievements.
4. Why was Ali ibn Nafi called 'blackbird'?
5. Why did Ali ibn Nafi go to Cordoba?
6. There are many important achievements made by Ali ibn Nafi. Write down two of these things.
7. How did Fatima al-Fihri use her money?
8. What was her major achievement?
9. Why is Alkindi called a true polymath?
10. Al-Kindi was brilliant at many fields. Write down two of these fields.

11. What does the underlined word **there** refer to?
12. How did Ali ibn Nafi contribute to European music?
13. Find a word in the text which means 'an expert in many subjects'.
14. who is Jabir bin Hayyan?
15. mention two of Jabir bin Hayyan's achievements:
16. what are the features of scales in a laboratory?
17. mention two names for Ali bin Nafi' .
18. what is the purpose of establishing the music school?
19. what was Al-Kindi good at?
20. what made Al-Kindy most famous?
21. quote the sentence which indicates that Al-Kindi has a lot of knowledge about many different subjects.
22. quote the sentence which indicates that Fatima's centre was developed to be the most famous university in the world.

Answers:

1. 93 years old
2. Chemistry
3. 1. founder of Chemistry 2. He began the production of sulphuric acid
4. Because of his beautiful voice
5. It was his talent for music.
6. . a. He established the first music school in the world in Cordoba. b. He introduced the oud to Europe.
7. She used her father's inheritance to build a learning center in Fez, Morocco
8. She built a learning center in Morocco, which became a world famous university.
9. Because he was an expert in many fields.
10. a. philosophy b. mathematics
11. Cordoba
12. He introduced the oud to Europe.
13. Polymath
14. He is the founder of Chemistry / A famous Arab chemist
15. a. the production of sulphuric acid. B.He also built a set of scales which changed the way in which chemists weighed items in a laboratory.

16. They could weigh items over 6000 times smaller than a kilogram
17. a.Ziryab b. blackbird
18. Teaching musical harmony and composition.
19. He was a physician, philosopher, mathematician, chemist, musician and astronomer.
20. His work in arithmetic and geometry that has made him most famous.
21. “Al-Kindi was a physician, philosopher, mathematician, chemist, musician and astronomer – a true polymath.
22. She used her father’s inheritance to build a learning centre in Fez Morocco

اسئلة الوزاره / فروع مهنية ٢٠١٩

1. Who is the founder of chemistry?
2. Why is Ali ibn Nafi' also known as "Zirab"?
3. Find a word in the text that means (a room for scientific experiments).
4. Ali ibn Nafi' made some important achievements in msic. Write down two of these achievements.
5. What has made Ali ibn Nafi' most famous?
6. Write down the sentence which indicates that Al-Kindi was a polymath.
7. Why is ibn Hayyan's set of scales significant?

AB p. 20 exercise 1 (vocabulary)

Complete the sentences with the words in the box. One word is not needed. The first one is done for you.

philosopher – arithmetic – polymath – chemist – geometry – mathematician – physician

1. My father teaches Maths. He’s a mathematician.
2. You must not take in medicine without consulting a
3. We learn about shapes, lines and angles when we study
4. Mr. Shahin is a true, working in all kinds of creative and scientific fields.
5. Ramzi is very good with numbers and calculations. He always scores high in
6. A is someone who thinks and writes about the meaning of life.

Answers:

2. physician 3. Geometry 4. Polymath 5. Arithmetic 6. Philosopher

AB p. 20 exercise 2 (vocabulary)

Match the words with the correct definitions. One definition is not needed. The first one is done for you.

1. Talent g	a. An expert in many subjects
2. Founder	b. A room for scientific experiments
3. Scales	c. The person who starts something new, such as an organization or a city.
4. Polymath	d. An instrument to measure weight
5. Arithmetic	e. An engineer
6. Laboratory	f. The study of numbers
	g. Special ability

Answers: 1. g 2. C 3. D 4. A 5. F 6. B

Masdar City – a positive step? مدينة مصدر – خطوة ايجابية؟

No.	The word	Meaning	English meaning
1	Zero-waste	خالي من النفايات	Producing no waste
2	Desalination	تحليه (تحلية المياه)	The process of removing salt from sea water so that it can be used again.
3.	Criticize	ينتقد	To evaluate or analyse – not approved

4.	Recycle	اعادة تدوير / اعادة تصنيع	Reuse
5.	Outweigh	اكتر اهمية (يفوق اهمية)	To be more important than something or someone.

Megaprojects (مشاريع عملاقه) are extremely large investment projects (مشاريع استثمارية), **which** are designed to encourage **economic growth** and bring new benefits (فوائد) to cities. Although megaprojects vary in terms of size and cost, **they** are all, by definition, expensive, public projects that attract (تجذب) a high level of interest and media coverage (تغطية إعلامية). Projects range from motorways, airports, stations, tunnels, bridges, etc. to entire city complexes.

المشاريع العملاقة هي استثمارات كبيرة جداً مصممة لتشجع النمو الاقتصادي وتجلب فوائد للمدن . رم ان المشاريع الكبيره او الضخمة تختلف في الحجم والتكلفة ، الا انها كلها مكلفة ومشاريع عامة تجذب مستوى عال من الاهتمام والتغطية الاعلامية . المشاريع الضخمة تتراوح بين طرق ومطارات ومحطات قطار وانفاق جسور ... الخ الى مجمعات مدن كاملة.

Which, they, all : Megaprojects

The concept (مفهوم) of a megaproject is always based on the benefits **it** brings to a community (مجتمع). However, many megaprojects have been criticized because of **their negative effects** on a community or the environment. This essay will look at these issues with regard to Masdar City, a megaproject in Abu Dhabi.

مفهوم المشاريع العملاقة دائماً قائمة على الفوائد التي ستجلبها للمجتمع . على اية حال فإن العديد من المشاريع العملاقة تم انتقدت بسبب أثرها السلبي على المجتمع او البيئة . هذه المقالة ستبحث في هذه القضايا بالاشارة الى مدينة مصدر وهي مشروع عملاق في ابو ظبي .

It: a megaproject – their : many megaprojects

Masdar City, **which** began **its** development in 2006 CE, will be the world's first carbon-neutral, zero waste artificially-created city. Covering an area of six square kilometres, when **it** is completed in 2025 CE, it is expected to house more than 40,000 residents (مواطن), 50,000 commuters (راكب), and 1,500 businesses (شركة) involved in mainly **environmentally-friendly** products.

مدينة مصدر والتي بدأ تطويرها عام ٢٠٠٦ ستكون المدينة الاولى في العالم محايدة للكربون ، مدينة خالية من النفايات المصنعة. تغطي مساحة ٦ كيلو مترات مربعة وعند اكتمالها في عام ٢٠٢٥ من المتوقع ان تؤدي اكثر من ٤٠ الف من السكان و ٥٠ الف من الركاب و ١٥٠٠ من الشركات المشاركة في منتجات صديقة للبيئة بشكل اساسي.

Which, its, it, it: Masdar City

The city will run (تدير / تشغل) entirely on **renewable energy** sources. **It** is built on an advanced energy grid (شبكة طاقة متقدمة) **which** monitors exactly how much electricity is being used by every outlet (قابس) in the complex.

المدينة ستشغل بالكامل بمصادر الطاقة المتجددة. مبنية على شبكة من خطوط الطاقة المتقدمة التي تراقب كم من الكهرباء يتم استهلاكه من خلال كل قابس في المجمع.

It: the city (Masdar city) – **which:** advanced energy grid

Furthermore, in order to reduce **its carbon footprint**, Masdar City will be a car-free zone, designed to be pedestrian (مشاة) and cycle-friendly. Electric, driverless cars will operate as **public transport** vehicles, and the city will be connected to other locations by a network of roads and railways.

علاوة على ذلك ومن اجل تقليل اثر مخرجات الكربون فإن مدينة مصدر ستكون خالية من المركبات ومصممة لأن تكون صديقة للمشاة وراكبي الدراجات. سيارات كهربائية وبدون سائق ستعمل كوسائل نقل عامة ، والمدينة ستكون موصولة بالمواقع الاخرى بشبكة من الطرق والسكك الحديدية.

Its: the city (Masdar City)

Energy will be provided by solar power and **wind farms**, and there are also plans to build the world's largest hydrogen plant (محطة هيدروجين). A desalination plant (محطة تحلية) will be used to provide the city's water, with 80% of water used being recycled. **Biological waste** will be used as an energy source too, and industrial waste will be recycled.

الطاقة سيتم التزود بها من الطاقة الشمسية ومزارع الرياح ، وهناك أيضاً خطط لإنشاء اضمخ محطة هيدروجين. محطة لتحلية مياه البحر ستستخدم لتزويد المدينة بالماء ، مع تكرير ٨٠% من الماء. المخلفات الحيوية ستستخدم كمصدر للطاقة أيضاً ، والمخلفات الصناعية سيتم تكريرها.

The current residents (citizens / مواطنين) of Masdar City are all students at the Masdar Institute of Science and Technology, a university **whose** students are fully committed to finding solutions to the world's energy problems.

المقيمون الحاليون في مدينة مصدر كلهم طلاب في معهد مصدر للعلوم والتكنولوجيا ، جامعة طلابها ملتزمون تماماً لايجاد حلول لمشاكل الطاقة العالمية.

Whose: a university

While the project has the support of many global (عالمي), environmental and conservation (محافظة على) organisations, there is some criticism of **it**. It is felt that, instead of building an artificial sustainable city, sustainability should be made a priority (أولوية) of existing cities.

بينما يلقى المشروع دعم العديد من منظمات حماية البيئة، هناك بعض الانتقادات لها. يقال انه وبدلاً من انشاء مدينة مستدامة صناعياً ، الاستدامة يجب ان تكون اولوية للمدن الموجودة بالفعل.

It: masdar city

In conclusion, the benefits of Masdar City for the community and the environment greatly outweigh (تخطى) any disadvantages. If the aims of the developers are realised, Masdar City will be a blueprint (project) for future **urban planning** that will inspire similar megaprojects in other countries.

وفي الخلاصة ، فإن فوائد مدينة مصدر للمجتمع والبيئة تتخطى وبشكل كبير اي سيئات تذكر. اذا تم ادراك هدف المطورين ، فإن مدينة مصدر ستكون قدوة للتخطيط الحضري المستقبلي الذي سيلهم مشاريع ضخمة شبيهة في بلدان أخرى.

Questions:

1. What examples of megaprojects are provided in the essay?
2. What are the advantages of the creation of Masdar City? What are the disadvantages?
3. Do you think that Masdar city is a beneficial project or not? Give your reasons.
4. Write down five things that will make Masdar City environmentally friendly city.
5. What's the opinion of those who criticize the project?

6. When will Masdar city be a successful project?
7. Write down two renewable sources of energy which will be used in Masdar City.
8. What's the only source of energy in Masdar City?
9. Megaprojects have positive and negative effects. Think of this statement and in two sentences write down your point of view.
10. Find a word from the text which means 'reuse'.
11. what are mega projects (definition) ?
12. The writer states two benefits of creating megaprojects. Write them down.
13. what is the difference between all kinds of mega projects?
14. what do mega projects have in common? (disadvantages)
15. Mega projects criticized because
16. Quote the sentence which shows the main reason to criticize mega projects?
17. Masdar city will run
18. There are many procedures that will be implemented to reduce carbon footprint in Masdar city. Mention two.
19. Mention two ways that will connect Masdar city to other locations.
20. certain power resources will supply (provide) Masdar city with energy. Write down two of these resources.
21. name two materials that will be recycled in Masdar city.
22. Where does the city's water come from?
23. Who is the present inhabitants (residents) of Masdar City?
24. what will happen if the aims of the developers are realized?

اسئلة الوزارة

1. There are many procedures that will be implemented to reduce carbon footprint in Masdar City. Write down two of these procedures.
2. The writer states tow benefits of creating megaprojects. Write them down.

3. What does the underlined word "outweigh" mean?
4. Quote the sentence which shows who are the present inhabitants of Masdar City.
5. "Making use of renewable energy sources has its own positive impacts on community and environment". Suggest three positive impacts on community and environment to show how far do you agree with this statement.
6. Some people argue that we should prioritise sustainability in already existing cities rather than, creating new one. Think of this statement and, in two sentences, write down your point of view.

Answers:

1. Motorways, airports, stations, tunnels, bridges and entire city complexes.
2. **The advantages are:** a. it will be the world's first carbon-neutral, zero waste city. B. it will also be a car-free zone. C. It will bring new technology. **The disadvantages are:** a. It's not fully environmentally clean. B. It costs a lot of money, which should be spent on existing cities.
3. Yes, I think so. Masdar City is designed to encourage economic growth and bring new benefits to the community
4. a. carbon-neutral b. driverless cars c. renewable energy sources d. environmentally-friendly products d. recycling.
5. It is felt that, instead of building an artificial sustainable city, sustainability should be made a priority of existing cities.
6. If the aims of the developers are realized, Masdar City will be a blueprint for future urban planning that will inspire similar megaprojects in other countries.
7. Solar energy and wind farms.
8. Renewable source of energy such as solar energy and wind farms.
9. I think some of them are good because they bring economic benefits to the community, although they are costly. Other megaprojects have negative effects on a community or the environment.
10. Recycle.
11. They are extremely large investment projects.
12. A. they encourage economic growth. B. they bring new benefits to cities.
13. They vary in terms of size and cost.
14. They are expensive, public projects.
15. Of their negative effects on a community or the environment.
16. "however, many megaprojects have been criticized because of their negative effects on a community or the environment"
17. Entirely on renewable energy sources.
18. A. Masdar City will be a car-free zone, designed to be pedestrian and cycle-friendly. B. Electric, driverless cars will operate as public transport vehicles.
19. A. roads B. railways
20. 1. Solar power 2. Wind farms 3. A hydrogen plant 5. Biological waste.
21. 1. Water 2. Industrial waste
22. From a desalination plant – from recycling
23. They are all students at the Masdar institute of Science and Technology.

24. Masdar city will be a blueprint for future urban planning that will inspire similar megaprojects in other countries.

Vocabulary – SB p. 33 exercise 4

Look at the nouns in the box. Which adjectives **collocate with** them ? write them next to the adjectives.

growth - effect - transport - footprint - waste - planning

المتلازمات : مهم جداً

Collocations	Arabic meaning	Collocations	Arabic meaning
Public transport	المواصلات العامة	Carbon footprint	أثار الكربون
Urban planning	التخطيط العمراني	Biological waste	النفايات البيولوجية
Economic growth	النمو الاقتصادي	Negative effect	الآثار السلبية

Vocabulary – SB p. 33 exercise 5

Complete the sentences with the correct collocations:

1. When people talk about, they can mean either an improvement in the average standard of living, or an increase in the value of a country's products.
2. Pollution has some serious on the environment, such as the death of wildlife and plant life.
3. We can all work hard to reduce our by living a more environmentally – friendly lifestyle.
4. If we take more often, there will be fewer cars on the roads, which will result in cleaner air in our cities.
5. Hospitals need to dispose of a lot of, and it should be arefully managed because it can be dangerous.
6. The need for more effective Is evident when we consider modern day problems like traffic.

Answers:

1. Economic growth 2. Negative effects 3. Carbon footprint 4. Public transport 5. Biological waste 6. Urban planning

AB p. 23 exercise 10

Complete the sentences with words from the box. One word is not needed.

المتلازمات : مهم جداً

benefit	Farms	Footprint	Free	Friendly	Neutral	Pedestrian	Power	Renewable	waste
فائدة	مزارع	انبعاث/اثر	خالي	صديق	محايد	مشاه	طاقة	متجدد	نفايات

1. In hot countries, solar is an important source of energy.
2. Green projects are environmentally
3. Wind are an example of Energy.
4. If a city recycles everything and doesn't throw anything away, it is zero
5. We burn carbon whenever we use oil, coal or gas. This is known as our carbon
6. If we replace as much carbon as we burn, we are carbon
7. A place where no cars are allowed is a car zone, and it is friendly.

Answers:

1. power 2. Friendly 3. Farms;renewable 4. Waste 5. Footprint 6. Neutral 7. Free; pedestrian

A founding father of farming: Ibn Bassel AB

No.	The word	Meaning	English meaning
1	Irrigate	يسقي	Supply land with water
2	Fertile land	ارض خصبة	Produced more than enough food
3.	Hands on	عمل يدوي	Field working – working by hand
4.	Legacy	ارث – تركه	What someone leaves to the world after his death.

Ibn Bassal was a writer, a scientist and an engineer **who** lived in Al-Andalus in the eleventh century CE. **He** worked in the court of Al-Ma'mun, **who** was the **King of Toledo**. **His** great passions (شغف / ولع) were botany (علم النبات), **which** is the study of plants, and agriculture. Although **he** was a great scholar, **he** was also a practical man and all of his writing came from **his** own 'hands-on' experience of working the land.

ابن بصال كان كاتباً وعالمًا ومهندساً عاش في الاندلس في القرن الحادي عشر ميلادي. عمل في بلاط المأمون ملك طليطلة. كان مولعاً في علم النبات وهو العلم الذي يدرس النبات والزراعة. رغم انه كان عالماً عظيماً الا انه كان رجلاً عملياً وكل كتاباته جاءت من تجربته الميدانية.

who,he,his,he,he,his: Ibn Bassal - **who:** Al-Ma'mun - **which:** botany

One of the many things **which** Ibn Bassal achieved was A Book of Agriculture. The book consisted of sixteen chapters **which** explain how best to grow trees, fruit and vegetables, as well as herbs (أعشاب) and sweet-smelling flowers (أزهار عبقة); perhaps the most famous chapter of **all** was the one **that described how to treat different types of soil**. Ibn Bassal also worked out how to irrigate the land by finding underground water and digging wells. **He** designed water pumps (مضخات ماء) and irrigation systems (انظمة الري). All of these things were passed on through **his** writing.

احد الاشياء العديدة التي حققها ابن بصال كان كتاباً بعنوان كتاب الزراعة. الكتاب تألف من ١٦ فصلاً توضح افضل طرق زراعة الاشجار والفواكة والخضروات ، وكذلك الاعشاب والازهار ذو الرائحة الطيبة، لعل اشهر الفصول كلها هو الفصل الذي وصف كيف تتعامل مع الانواع المختلفة للتربة. ابن بصال ايضاً عرف كيف يروي الارض من المياه الجوفية وحفر الابار. صمم مضخات مياه وانظمة ري. كل هذه الاشياء ذكرها في كتاباته.

which: one of the many things – **which, all:** sixteen chapters - **he,his:** Ibn Bassal

The influence of Ibn Bassal's book was enormous (great / عظيم). As farmers down the generations followed **his** instructions and advice, the land became wonderfully fertile (خصبة) and produced more than enough food for the fast- growing population. The irrigation systems **that he and his followers put in place** are still in evidence in Spain. Although **his** name is not widely known, Ibn Bassal's legacy (ارث) to the world has been great.

تأثير كتاب ابن البصال كان عيماً. كلما اتبع المزارعون عبر الاجيال تعليماته ونصيحته ، كلما أصبحت الارض خصبة وانتجت اكثر مما يكفي من الطعام لعدد السكان المتزايد. انظمة الري التي وضعها هو واتباعه في الخدمة ما زالت عاملة في اسبانيا. رغم ان اسمه ليس معروفاً كثيراً الا ان الارث الذي تركه ابن البصال للعالم كان عظيماً .

his,he,his,his: Ibn Bassal – **that:** the irrigation system

Questions:

1. Ibn Bassal has achievements. Write down two of these achievements.
2. Find a word from the text which means ‘supply land with water’.
3. What were the fields Ibn Bassal was specialized in?
4. The article suggests that Ibn Bassal was an example of practical scientists. Write down three examples from the text to prove this.
5. Ibn Bassal did many things to improve agriculture. Write down two of these things.
6. Find a word from the text which means ‘**field working**’.
7. Which sentence / part of the text that illustrates the meaning of ‘fertile land’
8. Which paragraph suggests that Ibn Bassal was a polymath? Give examples of his areas of knowledge.
9. There are two benefits for farmers who followed Ibn Bassal’s instructions. Mention them.
10. Quote the sentence which shows Ibn Bassal’s interests.

Answers:

1. a. A book of Agriculture b. water pumps and irrigation systems.
2. Irrigate
3. Botany and agriculture
4. a. all of his writing came from his own ‘hands on’ experience of working the land b. he worked out how to irrigate the land by finding underground water and digging wells. C. He designed water pumps and irrigation systems
5. a. he worked out how to irrigate the land by finding underground water and digging wells. b. He designed water pumps and irrigation systems
6. Hands-on
7. Agriculturally productive; ‘produced more than enough food ... ‘
8. The 1st paragraph – science, writing, engineering, botany, agriculture.
9. The land became wonderfully fertile and produced more **than** enough food for the fast-growing population.
10. “His great passions were botany, which is the study of plants and agriculture.”

1. Ibn Bassal was polymath. Write down two examples of his areas of knowledge.
2. There were two benefits for farmers who followed Ibn Bassal's instructions. Write down these two benefits.
3. Quote the sentence which shows Ibn Bassal's two great interests.
4. Find a word in the text which means "what someone leaves to the world after his death".
5. The area around Toledo had a 'fast – growing population'. Suggest three possible reasons that made the population there be a 'fast – growing one'.
6. Reaching high levels of achievements in the past was more difficult than it is nowadays. Think of this statement and, in two sentences, write down your point of view.

Wh. Questions ادوات الاستفهام

What?	ماذا؟ السؤال عن شيء او اشياء	How tall?	كم طول؟
Why?	لماذا؟ السبب	How far?	كم تبعد؟ للمسافات
Who?	من؟ السؤال عن شخص عاقل	How much?	كم الكمية؟ غير المحدود
When?	متى؟ سؤال عن الزمن	How many?	كم الكمية؟ مع المحدود
Where?	اين؟ السؤال عن مكان	how long?	كم طول؟ مده زمنية او للسؤال عن طول مسافه
Whose?	لمن؟ السؤال عن ملكيه شيء	how often?	كم مره؟
How?	كيف؟ السؤال عن كيفيه او طريقه	How old?	كم عمر؟