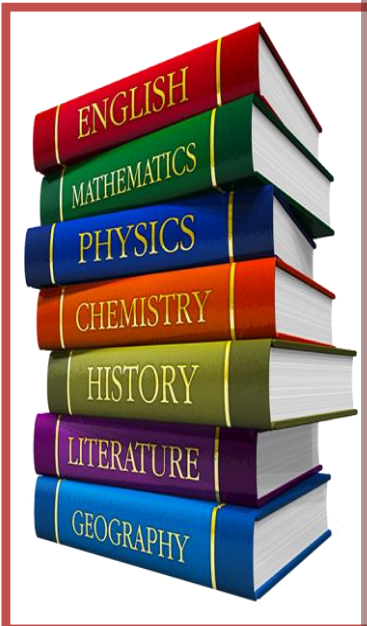
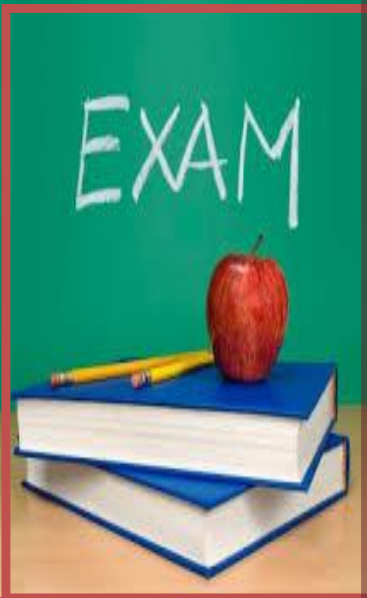


# YEAR 12



**Term 2 Exam**  
**2017-2018**

O  
B  
J  
E  
C  
T  
I  
V  
E  
S



# O B J E C T I V E S

## CONTENTS

**1. Arabic**

**2. Sharia**

**3. Hum Arabic**

**4. English**

**5. Physics**

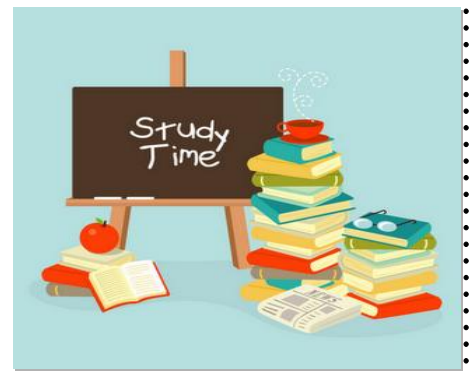
**6. Chemistry**

**7. Biology**

**8. Mathematics**

**9. ICT**

**10. Business**



Teacher's name : Jinan mousa

Subject: Arabic

Year : 12

No.	Term 2 objectives:
1	كتابة المقال السياسي والاجتماعي وفق شروطه وعدد كلماته المطلوب
2	طرح قضية ما للنقاش ومناقشة أسبابها وآثارها السلبية والإيجابية واقتراح حلول بناءة لها
3	ضبط الكلمة ضبطا سليما وفق موقعها الإعرابي من الجملة
4	ترجمة النص من العربية إلى الانجليزية ترجمة سليمة

Max. number of objectives is 4 objectives.

No of assessments during the term(without including the end of term exam) عدد الاختبارات خلال الفصل ما عدا نهاية الفصل	2
Total mark for each assessment (every assessment is out of what) درجات الاختبارات	درجة الاختبار الأول 20 علامة – الثاني 25 علامة
Duration of end of term exam/exams الدرجة الخاصة باختبار نهاية الفصل	ورقة واحدة مدتها ساعتان ونصف – الدرجة

Please use your class practical experience and knowledge for the topics covered - 1

كتابة المقال الاجتماعي والسياسي كتابة سليمة وفق شروطه وعدد كلماته المطلوب في الموضوعات التالية

أ- التاريخ العربي عبر العصور

ب- الثقافة والفنون العربية

ت- الثقافة الاجتماعية العربية

كتابة النص النقاشي ( وعرض أسباب المشكلة – آثارها السلبية – اقتراح حلول لها)

ضبط الكلمة ضبطا سليما وفق موقعها من الإعراب

ترجمة النص من العربية إلى الانجليزية

Teacher's name : hanadi adel  
group: 12

Subject: sharia

Year

No.	Term 2 objectives:
1	أن تسمع الطالبة سورة ق تسميها صحيحاً
2	أن تبين الطالبة أنواع الصدقات المذكورة في حديث (( كل سلامي من الناس عليه صدقة ...)) وحكمها .
3	أن تقارن الطالبة بين القرآن الكريم والحديث القدسي الحديث النبوي .
4	أن تستعرض الطالبة مواقف من حياة الصحابي الجليل عبد الله بن عمر .

No of assessments during the term(without including the end of term exam) عدد الاختبارات خلال الفصل ما عدا نهاية الفصل	2
Total mark for each assessment (every assessment is out of what) درجات الاختبارات	20
Duration of end of term exam/exams الدرجة الخاصة باختبار نهاية الفصل	50

Topics and units covered/ Studying material/Any other information المواضيع الداخلة باختبار نهاية الفصل
<p>الاختبار الشفهي : تسمع سورة ق مع المعاني .</p> <p>الاختبار التحريري :</p> <ol style="list-style-type: none"> <li>1- علوم القرآن 2</li> <li>2- الصحابي الجليل عبد الله بن عمر .</li> <li>3- علم مصطلح الحديث .</li> <li>4- من طرق الخير ( حديث ) .</li> <li>5- أشهر كتب السنة .</li> <li>6- أحكام الجهاد .</li> <li>7- تحرير المرأة .</li> </ol>

Teacher's name: ميمونة محمد Subject: العلوم الاجتماعية Year group: الثاني عشر

No.	Term2 objectives:
1	أن تبين عوامل تشكيل سطح الأرض.
2	أن توضح الظروف التي أدت إلى قيام الحرب العالمية الثانية.
3	أن تذكر أسباب الحرب العالمية الثانية المباشرة وغير المباشرة.
4	أن تبين مفهوم التوازن البيئي ووسائل المحافظة عليه.
5	أن تعرف مفهوم العولمة وتقرن بين مساوئ ومحاسن العولمة.

Max. Number of objectives : .....

No of assessments during the term (excluding the end of term exam)	Assessment 1 Assessment 2
Total mark for each assessment (every assessment is out of what)	Total (30) Assessment 1 ( 15 ) Assessment 2 ( 15 )
No of assessments needs to be included in end of term 1 exam timetable	50
Duration of end of term exam/exams	..... minutes

#### Topics and units covered/ Studying material/Any other information

<p>1-عوامل تشكيل سطح الأرض(التجوية،الانهيارات الأرضية، عوامل التعرية).</p> <p>2-الحرب العالمية الثانية (الظروف الدولية التي أدت إلى قيام الحرب العالمية الثانية، أسباب الحرب العالمية الثانية، أطراف النزاع في الحرب العالمية الثانية، أهم أحداث ومراحل الحرب العالمية الثانية، نتائج الحرب العالمية الثانية)</p> <p>3-البيئة والتوازن البيئي(المفهوم ، أهميته، أسباب اختلاله ،وسائل المحافظة عليه من الاحتلال).</p> <p>4-العولمة(مفهومها،وسائل نشرها، سلبياتها، إيجابياتها. )</p>
--

**Teacher: Ms ANA**

**Subject: ENGLISH**

**Year group: 12**

No.	Term 2 objectives:
1	<p>READING</p> <ul style="list-style-type: none"> <li>• Demonstrate understanding of explicit meanings</li> <li>• Demonstrate understanding of implicit meanings and attitudes</li> <li>• Select information for specific purposes.</li> </ul>
2	<p>WRITING</p> <ul style="list-style-type: none"> <li>• Articulate experience and express what is thought, felt and imagined</li> <li>• Use a range of appropriate vocabulary</li> <li>• Make accurate use of spelling, punctuation and grammar</li> </ul>
3	<p>SPEAKING</p> <ul style="list-style-type: none"> <li>• Do a job interview</li> <li>• Demonstrate the ability to speak fluently and confidently without notes</li> </ul>

No of assessments during the term (without including the end of term exam)	2
Total mark for each assessment (every assessment is out of what?)	20 – Writing 20 – Speaking
No of assessments needs to be included in end of term 2 exam timetable	1
Duration of end of term exam/exams	1.5 hours

### Topics and units covered/ Studying material/Any other information

**Topics covered:**

- \* A number of vocabulary exercises to enhance vocabulary
- \* CV writing
- \* Interview skills

**Exam Preparation:**

- \* Practise readings from IELTS, SAT or TOFL.
- \* Read through vocabulary lists and familiarize yourself with as many words as possible.

Teacher's name: **Gaye Gungor**

Subject: **Physics**

Year group: **12 A/B**

No.	Term 2 objectives:
1	Waves
2	DC Electricity
3	Nature of light

**Max. Number of objectives is 3 objectives.**

No of assessments during the term(without including the end of term exam)	<b>2</b>
Total mark for each assessment (every assessment is out of what)	<b>41, 40</b>
No of exam papers to be included in end of term 1 exam timetable	<b>2</b>
Duration of end of term exam/exams	<b>Unit 1 - 1 h 30 min Unit 2 - 1 h 30 min Unit 3 - 1h 20 min</b>

### Topics and units covered/ Studying material/Practical skills & any other information

#### Unit 1

##### Topic 1 Mechanics

- Describing motion
- Equations of motion
- Graphs of motion
- Vectors / scalars
- Moving in more than one directions
- Causes of motion
- Newton's laws
- Inertia / mass / weight
- Measuring g
- Projectiles
- Energy / Power / Efficiency

##### Topic2 Materials

- Fluids
- Density
- Archimedes' Principle
- Fluid flows & Stokes' Law



- Viscosity
- Terminal velocity
- The properties of solids / Hooke's Law
- Stress / strain / young modulus
- Stress-strain / force-extension graphs
- Materials in the real world

## Unit 2

### Topic 3 Waves

- Types of waves / properties of waves
- Superposition and standing waves
- The behavior of waves (reflection, refraction, interference, diffraction)
- Light and sound
- Electromagnetic spectrum
- Doppler effect, Doppler radar and Doppler ultrasound / Pulse-echo detection
- Polarization
- X-ray and electron diffraction
- Electromagnetic spectrum

### Topic 4 DC electricity

- Electric current
- Emf
- Potential difference
- Power / work in circuits
- Resistance and resistivity
- Circuits containing resistors
- Ohmic / non-ohmic conductors
- The transport equation / drift velocity of electrons
- Potential dividers
- Sources of e.m.f. and internal resistance
- Conduction in metals, semiconductors and insulators
- Sensing and control circuits
- 

### Topic 5 Nature of light

- History of light
- Photon model of light
- Photoelectric emission and photoelectric equation
- Wave – particle duality
- Electron-volt
- Radiation flux
- Radiation flux and solar cells
- Photons, spectra and energy levels
- Photovoltaic efficiency
- How does society choose its energy sources?





- **Atomic spectra and energy levels**

**Materials**

- **Course book / Course Revision book**
- **Class notes**
- **Past paper questions**

**Study tips**

- **Read and revise the topics**
- **Make summaries of the key points**
- **Memorize the equations**
- **Practice past paper questions**

Teacher's name : -----Uzma Jalil----- Subject: -----Chemistry----Year group: --12A/B--

No.	Term 2 objectives:
1	Shapes of molecules and ions; Intermediate bonding and bond polarity & Intermolecular forces
2	Organic chemistry & Mechanisms: Alcohols, Halogenoalkanes
3	The periodic table — groups 2 and 7
4	Mass spectra, IR and Green Chemistry
5	Redox & Kinetics

No of assessments during the term(without including the end of term exam)	2
Total mark for each assessment (every assessment is out of what)	56,64
No of assessments needs to be included in end of term 1 exam timetable	3
Duration of end of term exam/exams	UNIT 1 (1hr 30 min):80 Marks UNIT 2 (1hr 30 min):80 Marks UNIT 3(1hr 15 min):50 Marks

#### Topics and units covered/ Studying material/Any other information

##### Topic 1: Shapes of molecules and ions; Intermediate bonding and bond polarity & Intermolecular forces

- demonstrate an understanding of the use of :electron-pair repulsion theory to interpret and predict the shapes of simple molecules and ions , bond length and bond angle and predict approximate bond angles in simple molecules and ions
- demonstrate an understanding of the terms discuss the different structures formed by carbon atoms, including graphite, diamond, fullerenes and carbon nanotubes, and the applications of these, eg the potential to use nanotubes as vehicles to carry drugs into cells
- recall that ionic and covalent bonding are the extremes of a continuum of bonding type and explain this in terms of electronegativity differences leading to bond polarity in bonds and molecules, and to ionic bonding if the electronegativity is large enough; distinguish between polar bonds and polar molecules and be able to predict whether or not a given molecule is likely to be polar
- demonstrate an understanding of the nature of intermolecular forces resulting from interactions between permanent dipoles, instantaneous dipoles and induced dipoles (London forces) and from the formation of hydrogen bonds
- interpret given information about solvents and solubility to explain the choice of solvents in given contexts, discussing the factors that determine the solubility; the solubility in non-aqueous solvents of compounds which have similar intermolecular forces to those in the solvent.

##### Topic 2: Organic chemistry & Mechanisms: Alcohols, Halogenoalkanes

- ALCOHOLS:**demonstrate an understanding of the nomenclature and corresponding structural, displayed and skeletal formulae of alcohols, and classify them as primary, secondary or tertiary
- reactions of alcohols :** combustion, reaction with sodium, substitution reactions, reaction with  $PCl_5$ , oxidation (reflux & distillation)
- HALOGENOALKANES:** demonstrate an understanding of the nomenclature and corresponding structural, displayed and skeletal formulae for halogenoalkanes, including the distinction between primary, secondary and



tertiary structures

- **Preparation of Halogenoalkanes:** from an alcohol and explain why a metal halide and concentrated sulfuric acid should not be used when making a bromoalkane or an iodoalkane
- **Reactions of Halogenoalkanes:** with aqueous alkali eg KOH (aq) ; alcoholic potassium hydroxide; water containing dissolved silver nitrate; alcoholic ammonia
- discuss the uses of halogenoalkanes, eg as fire retardants and modern refrigerants.
- **MECHANISM:** classify reactions (including those in Unit 1) as addition, elimination, substitution, oxidation, reduction, hydrolysis or polymerization ;demonstrate an understanding of the concept of a reaction mechanism and that bond breaking can be homolytic or heterolytic and that the resulting species are either free radicals, electrophiles or nucleophiles; give definitions of the terms free radical, electrophile and nucleophile
- demonstrate an understanding of how oxygen, O<sub>2</sub>, and ozone, O<sub>3</sub>, absorb UV radiation and explain the part played by emission of oxides of nitrogen, from aircraft, in the depletion of the ozone layer, including the free radical mechanism for the reaction and the fact that oxides act as catalysts

### Topic 3: The periodic table — groups 2 and 7

- explain the trend in the first ionization energy down group 2 reaction of the elements in group 2 with oxygen, chlorine and water; reactions of the oxides of group 2 elements with water and dilute acid, and their hydroxides with dilute acid trends in solubility of the hydroxides and sulfates of group 2 elements; trends in thermal stability of the nitrates and the carbonates of the elements in groups 1 and 2 and explain these in terms of size and charge of the cations involved; the characteristic flame colours formed by group 1 and 2 compounds and explain their origin in terms of electron transitions
- experiments to study the thermal decomposition of group 1 and 2 nitrates and carbonates ;flame tests on compounds of group 1 and 2 ;simple acid-base titrations using a range of indicators, acids and alkalis, to calculate solution concentrations in g dm<sup>-3</sup> and mol dm<sup>-3</sup> , eg measuring the residual alkali present after skinning fruit with potassium hydroxide;demonstrate an understanding of how to minimise the sources of measurement uncertainty in volumetric analysis and estimate the overall uncertainty in the calculated result.
- describe and carry out the following chemical reactions of halogens: oxidation reactions with metal and non-metallic elements and ions such as iron(II) and iron(III) ions in solution; disproportionation reactions with cold and hot alkali, eg hot potassium hydroxide with iodine to produce potassium iodate(V) ; carry out an iodine/thiosulfate titration, including calculation of the results and evaluation of the procedures involved, eg determination of the purity of potassium iodate(V) by liberation of iodine and titration with standard sodium thiosulfate solution
- describe and carry out the following reactions:
  - i. potassium halides with concentrated sulfuric acid, halogens and silver nitrate solution
  - ii. silver halides with sunlight and their solubilities in aqueous ammonia solution
  - iii. hydrogen halides with ammonia and with water (to produce acids)
  - iv. Make predictions about fluorine and astatine and their compounds based on the trends in the physical and chemical properties of halogens.

### Topic 4: Mass spectra and IR & Green chemistry

- interpret fragment ion peaks in the mass spectra of simple organic compounds, eg the difference between propanal and propanone
- Demonstrate an understanding that only molecules which change their polarity as they vibrate can absorb infrared radiation ;use infrared spectra, or data from infrared spectra, to deduce functional groups present in organic compounds and predict infrared absorptions, given wavenumber data, due to familiar functional



groups. This will be limited to:

- i. C-H stretching absorptions in alkanes, alkenes and aldehydes
- ii. O-H stretching absorption in alcohols and carboxylic acids
- iii. N-H stretching absorption in amines
- iv. C=O stretching absorption in aldehydes and ketones
- v. C-X stretching absorption in halogenoalkanes
- vi. as an analytical tool to show the change in functional groups during the oxidation of an alcohol to a carbonyl

**Green chemistry:** demonstrate an understanding that the processes in the chemical industry are being reinvented to make them more sustainable ('greener') by:

- i. changing to renewable resources
  - ii. finding alternatives to very hazardous chemicals
  - iii. discovering catalysts for reactions with higher atom economies, eg the development of methods used to produce ethanoic acid based on catalysts of cobalt, rhodium and iridium
  - iv. making more efficient use of energy, eg the use of microwave energy to heat reactions in the pharmaceutical industry
  - v. reducing waste and preventing pollution of the environment
- discuss the relative effects of different greenhouse gases as absorbers of IR and hence on global warming
  - discuss the difference between anthropogenic and natural climate change over hundreds of thousands of years
  - demonstrate understanding of the terms 'carbon neutrality' and 'carbon footprint'; apply the concept of carbon neutrality to different fuels, such as petrol, bio-ethanol and hydrogen
  - discuss and explain, including the mechanisms for the reactions, the science community's reasons for recommending that CFCs are no longer used due to their damaging effect on the ozone layer.

#### **Topic 5: Redox & Kinetics**

- Redox: understanding of oxidation number — the rules for assigning oxidation numbers ;classification of reactions as redox and as disproportionation; write ionic half-equations and use them to construct full ionic equations.
- Kinetics: factors that influence the rate of chemical reaction, including concentration, temperature, pressure, surface area and catalysts; use, the Maxwell-Boltzmann model of the distribution of molecular energies to relate changes of concentration the alteration and temperature to in the rate of a reaction
- demonstrate an understanding of the concept of activation energy and its qualitative relationship to the effect of temperature changes on the rate of reaction; role of catalysts in providing alternative reaction routes of lower activation energy and draw the reaction profile of a catalysed reaction including the energy level of the intermediate formed with the catalyst
- Carry out simple experiments to demonstrate the factors that influence the rate of chemical reactions, eg the decomposition of hydrogen peroxide.

**Please use your class practical experience and knowledge for the topics covered.**

**For thorough preparation of the course material please read & understand each lesson from your text book, solve end of chapter exercises, solve past papers and use lab activities, work sheets & class notes as extra resources**

No.	Term 2 objectives:
1	Transport around the body, water, blood; circulatory system; blood clotting
2	Cardiovascular diseases, risks and control. Evaluating studies and interpreting data.
2	Biological molecules –carbohydrates, lipids and proteins
3	Cell membranes, and transport across membranes
4	Gas exchange surfaces and adaptations of mammalian lungs
5	Enzymes and their mode of action
6	DNA Structure and replication
7	Transcription, translation and protein synthesis
8	Genetic mutations and genetic diagrams
9	Cystic fibrosis
10	Genetic screening and gene therapy
11	Prokaryote and Eukaryote cell structure
12	Ultrastructure of animal cells and role of RER and Golgi apparatus in protein synthesis
13	Mitosis and cell cycle
14	Meiosis and gametogenesis
15	Gamete structure and specialisation
16	Fertilisation in mammals and flowering plants
17	Stem cells –Pluripotency, totipotency Stem cell research and therapy
18	Cell differentiation and gene expression
19	Polygenic inheritance
20	Ultrastructure of plant cells, Structure and function of cellulose and starch.
21	Plant fibres and use of plant based fibres, Xylem and Sclerenchyma fibres
22	Organic ions, water and plant mineral deficiencies
23	Antimicrobial properties of plants and protocols of drug testing
24	Biodiversity, adaptation and natural selection
25	Conservation methods and critical evaluation of new data by scientists
26	Use of zoos and seedbanks in conservation Review of scientific reports and visits

No of assessments during the term(without including the end of term exam)	2
---	---



Total mark for each assessment (every assessment is out of what)	<b>46,45</b> AL- Arqam Academy For Girls
No of assessments needs to be included in end of term 1 exam timetable	<b>1</b>
Duration of end of term exam/exams	<b>Unit 1 (1 hr 30 mins) + Unit 2 (1 hr 30 mins) and Unit 3 (1 hr 30 mins) Total 4 hours and 30 minutes Total 200 marks (80+80+40)</b>

#### Topics and units covered/ Studying material/Any other information

##### Core practicals;

1. Effect of caffeine on heart rate in Daphnia
2. The vitamin C content of food and drink
3. Effect of alcohol concentration or temperature on membrane permeability
4. Effect of enzyme and substrate concentrations on initial rates of reactions.
5. Root tip squash and observing mitosis
6. Totipotency in plants – tissue culture techniques
7. Tensile strength of plant fibres
8. Investigating Plant mineral deficiency
9. Antimicrobial properties of plants

##### Materials

- Course book / Course Revision book
- Class notes
- Past paper questions

##### Study tips

- Read and revise the topics
- Make summaries of the key points
- Practice past paper questions

**Teacher's name: Laila Saad**  
**Year group: 12**

**Subject: Mathematics C12**

No.	Term 2 objectives:
<b>1</b>	<b>ALGEBRA:</b> Students should be able to Use the remainder theorem to find the remainder when a polynomial $f(x)$ is divide by $(ax-b)$
<b>2</b>	<b>GEOMETRY:</b> Students should be able to find the mi point of a line, distance between two points, find the equation of a circle
<b>3</b>	<b>Number:</b> Students should be able recognize a geometric sequence and calculate the nth term , find the sum of a geometric series, solve problems involving growth and decay, find the sum to infinity of convergent geometric series
<b>4</b>	<b>Calculus;</b> Students should be able to Know the difference between the increasing and decreasing functions, apply their knowledge of turning points to solve problems Use integration to find the area under curves, or to find the area between a curve and a line

**Max. Number of objectives is 4 objectives.**

No of assessments during the term(without including the end of term exam)	<b>2</b>
Total mark for end of term assessment	
No of exam papers to be included in end of term 1 exam timetable	<b>1</b>
Duration of end of term exam/exams	<b>1h 30min</b>

**Topics and units covered/ Studying material/Practical skills & any other information**



### **1: Algebra and Functions**

1. Simplify algebraic fractions by dividing
2. Divide a polynomial  $f(x)$  by  $(x+p)$
3. Factorize a polynomial by using the factor theorem

Use the remainder theorem to find the remainder when a polynomial  $f(x)$  is divide by  $(ax-b)$

### **2.The sine and cosine rule**

#### **The sine and cosine rule**

1. Use the sine rule to find the missing side and the missing angle
  2. Use the cosine rule to find the missing side and the missing angle
  3. Solve problems using combinations of Pythagoras theorem and the above rules
- Find the area of the triangle using an appropriate formula.

### **3.Exponential and logarithms**

1. Know the shape of the graph of  $y= a^x$
2. Write an expression in logarithmic form
3. Use the laws of logarithms
4. Solve equations of the form  $a^x$

### **4.Coordinate geometry in the (x,y) plane**

Coordinate geometry of the circle using the equation of a circle in the form  $(x-a)^2 + (y-b)^2 = r^2$  and including the use of the following circle properties:

- i) the angle in a semicircle is a right angle;
- ii) the perpendicular from the centre to a chord bisects the chord;
- iii) The perpendicularity of the radius and tangent.

### **5.the binomial expansion**

1. use Pascal's triangle to expand expressions of the form  $(a+b)$  to the power of  $n$
  2. use combination and factorial notation to expand expressions of the form  $(a+b)$  power  $n$
  3. use the expansion of  $(1+x)$  power  $n$  to expand  $(a+b)$  power of  $n$
- Binomial expansion of  $(1+x)^n$  for a positive integer  $n$ .**

The notations of  $n!$  and  $\binom{n}{r}$

### **6.Radian measure and its applications**

1. convert between radian and degrees and vice versa
  2. use the formula in radian for the length of an arc and the area of a sector
- use the formula in radian for the segment of a circle

### **7.GEOMETRIC SEQUENCES AND SERIES**

1. Recognize a geometric sequence and state its common ratio
  2. Calculate the  $n$ th term of a geometric sequence
  3. Find the sum of a geometric series
  4. Solve problems involving growth and decay
- Find the sum of infinity of convergent geometric series





### **8.Differentiation**

1. Know the difference between an increasing and decreasing function
2. Find the stationary point
3. Distinguish between a maximum, a minimum and a point of inflexion

Apply her/his knowledge of turning points to solve problems.

### **9.Integration**

1. Integrate simple functions within defined limits
2. Use integration to find areas under curves
3. Use integration to find the area between a curve and a line
4. Approximate the area under a curve by using the trapezium rule

### **10. trigonometrical identities and simple equations**

#### **Graphs of trigonometry functions**

1. Sketch the graphs of the sine, cosine and tangent functions.
2. Solving quadratic and simple trigonometry equations.
3. Simple trigonometrical identities.

Teacher's name: Laila Saad  
Year group: 12

Subject: Mathematics (S1)

No.	Term 2 objectives:
1	<p><b>Representation and summary of data</b> Statistical Measures</p> <p>Find mean, mode, median, range, quartiles and standard deviation of data from a list and from a frequency table.</p> <p>Consider outliers and include using both a calculator and spreadsheet.</p> <p>Use of a cumulative frequency graph to find the median, quartiles and percentiles.</p> <p>Compare and contrast data sets using statistical charts and measures.</p> <p>Measures of dispersion – variance, standard deviation, range and inter-percentile ranges.</p> <p>Skewness. Concepts of outliers</p>
2	<p><b>Correlation</b> Scatter diagrams. Linear regression. Explanatory (independent) and response (dependent) variables. Applications and interpretations.</p> <p>The product moment correlation coefficient, its use, interpretation and limitations.</p>
3	<p><b>Discrete random variables, Normal distribution</b> be able to find the cumulative distribution function of a discrete random variables, the expected value and the variance</p> <p>Use the normal distribution and its table to find probability and use its tables to find means and the standard deviations</p>

No.	Topics and units covered/ Studying material/Practical skills & any other information
1	<p><b>Representation and summary of data – location</b></p> <p>1. Recognise different types of data 2. Find the mean, mode and median for discrete data presented as list Discrete data presented in a table. 3. use coding to make calculations of measures of location simpler</p>
2	<p><b>3. Representation and summary of data – measures of dispersion</b></p> <p>1. Find the quartiles, range, inter-quartile range, variance and standard deviation for discrete data presented in a grouped frequency table 2. use coding to make calculation of measures of dispersion simpler</p>
3	<p><b>4. Representation of data</b></p> <p>1. Draw stem and leaf diagrams</p>



أكاديمية الأرقام للبنات  
AL- Arqam Academy For Girls

	<p>2.Calculate outliers 3.Draw box plots 4.Draw histograms 5.Work out whether data are skewed 6.compare sets of data</p>
<b>4</b>	<p><b>6. Correlation</b> 1. Show diagrammatically, pairs of observations of variables. 2.Be able to decide if there is a relationship between two variables 3. put a numerical measure on the strength of this relation ship 4. Simplify calculations by using coding.</p>
<b>5</b>	<p><b>7. Regression</b> 1.Understanding the idea of independent and dependent variables 2. Work out the regression of a line which best fits the trend of the points on a scatter diagram 3. Apply and interpret the regression equation</p>
<b>6</b>	<p><b>8. Discrete random variables</b> 1. Understand what a discrete random variables is 2. Understand discrete random variables arise 3. be able to find the cumulative distribution function of a discrete random variables. 4.Be able to use the discrete uniform distribution</p>
<b>7</b>	<p><b>9. Normal distribution</b> 1. Use the normal distribution and its table to find probability 2. Use the normal distribution and its tables to find means 3. Use the normal distribution and its table to find deviations.</p>
<b>8</b>	<p><b>10. Probability</b> 1. Understand common terms used in probability and solve simple probability problems. 2. Use set notation and venn diagrams to solve problems with two or three events. 3. use given formulae to find probability</p>

No of assessments during the term(without including the end of term exam)	<b>2</b>
Total mark for each assessment (every assessment is out of what)	<b>75</b>
No of exam papers to be included in end of term 1 exam timetable	<b>1 paper</b>
Duration of end of term exam/exams	<b>1h 30min</b>

**Teacher's name: Ms Ameera**

**Subject: ICT**

**Year group: 12**

No.	Term 2 Topics
1	Data, information, knowledge and processing
2	Hardware and software
3	Monitoring and control
4	E-safety and health and safety
5	The digital divide
6	Using networks
7	Expert systems
8	Spreadsheets
9	Database and file concepts
10	Sound and video editing

No of assessments during the term (without including the end of term exam)	2
Total mark for each assessment (every assessment is out of what?)	Assessment 1: 25 Assessment 2:
No of assessments needs to be included in end of term 1 exam timetable	2
Duration of end of term exam/exams	1 hour theory, 2 hours practical

**Topics and units covered/ Studying material/Any other note the teacher would like to remind students of(eg. Needed tools on the test...etc)**

Students need to revise above mentioned topics from given notes, books and AS past papers. Students can also take help from all the resources uploaded at [www.edmodo.com](http://www.edmodo.com).

Teacher's name: MissAnisah Subject: AS Business

Year group: 12

No.	Term2 objectives:
1	Students to develop an understanding of raising and managing finance, and measuring business performance.
2	Students will be able to understand the importance of using resources efficiently within a business to ensure that goods or services can be delivered effectively and efficiently to a high quality.
3	Students will understand the external influences that have an impact on businesses including economic and legal factors.
4	Students must investigate different types and sizes of organisations in various business sectors and environments and in local, national and global context. Competitive environments.

No of assessments during the term (without including the end of term exam)	2
Total mark for each assessment (every assessment is out of what?)	A1: A2:
No of assessments needs to be included in end of term 2 exam timetable	2
Duration of end of term exam/exams	2 hours

### Topics and units covered/ Studying material/Any other information

#### All of unit 2 (for paper 2):

**Internal and external finance** - Know of the various methods of finance available to a company and the sources in which these can be obtained such as owners capital, retained profits, sales of assets, crowd funding etc, loans, mortgages etc.

**Liability** - The implications of limited and unlimited liability and the finance that is available for these companies - how the companies liability can affect the finance that is available to them.

**Planning** - Understand why a business plan is necessary to obtain finance, able to interpret a cash flow forecast and also know of the uses and limitations of a cash flow forecast.

**Sales forecasting** - Understand the purpose of sales forecasting and the factors that can affect sales forecast such as consumer trends, economic variables, actions of competitors and also to be able explain the difficulties of sales forecasting.

**Sales, revenue and costs** - able to make the following calculations: sales volume, sales revenue, fixed costs and variable costs. Formulas are to be remembered.

**Break-even** - Know the formulas for contribution (Contribution: selling price – variable cost per unit), BEP (total fixed costs + total variable costs = total revenue). Understand the margin of safety, and know of the limitations of break even analysis.



أكاديمية الأرقام للبنات  
Al-Aqam Academy For Girls

**Budgets** - Understand why businesses budget and why they set budgets. Be able to explain the types of budgets (historical and zero based), understand the variance analysis (adverse and favorable) and explain the potential difficulties of budgeting.

**Profit** - Be able to make calculations of: gross profit, operating profit and new profit. Understand how to make calculations for profit and loss account - measuring profitability, gross profit margin, operating profit and profit for the year as well as providing information regarding ways in which profitability can be improved. understand the distinction between profit and cash.

**Liquidity** - understand how to measure liquidity, making calculations in regards to current ratio and acid test ratios. Explaining ways on how to improve liquidity. and also understanding working capital and its management - the importance of cash.

**Business failure** - Understanding the Internal and external causes of business failure: both financial and non financial factors.

**Production, productivity and efficiency** - Know of the production methods (job, batch etc), the link between productivity and competitiveness and the factors that can influence productivity. Efficiency - production at minimum average costs, factors that may influence efficiency and the distinction between labour and capital intensive production.

**Capacity utilisation** - Understand the formula of capacity utilisation (current output (divided by) maximum possible output (x 100)). The implications of under- and over-utilisation of capacity and Ways of improving capacity utilisation.

**Stock control** - Understand the terms: buffer stocks, JIT and lean production and how these are used. Understand how companies can manage stock, minimise waste and what the implications of poor stock control can lead to. Additionally, how competitive advantage can be gained from lean production.

**Quality management** - Understand the various quality methods such as: control, assurance, circles and TQM. To also understand the process of kaizen Competitive advantage from quality management.

**Economic influences** - The effect on businesses of changes in: inflation, exchange rates, interest rates, taxation and government spending and the business cycle. Also, understand the effect of economic uncertainty on the business environment.

**Legislation** - The effects on businesses of legislations such as: consumer protection, employee protection, environmental protection, competition policy and health and safety.

**The competitive environment** - Understand how the market size can affect competition.

**STUDENTS SHOULD ALSO COVER All of unit 1 (FOR PAPER 1): Meeting customer needs:**

- The Market
- Marketing mix and strategy
- Managing people
- Entrepreneurs and leaders

PLEASE USE CLASS NOTES, TEXTBOOK AND EXAM TECHNIQUE  
RESOURCES ON EDMODO