Holiday Homework for Grade 9

GD Goenka

ENGLISH

English Literature

A. Read the following course books thoroughly

1 An Inspector Calls
2. Merchant Of Venice
3. Mansfield Park

B. Make illustrative presentations on the following poems. It can be through PPTs, charts, flashcards etc

To be done in groups discussed in class

1. Father returning Home –Dilip Chitre
2. Grandma Knitting.-Liz Lochead

English Language

The task needs to be done in the 'Language ' note book.

Letter Writing

1. You are a teenager but your parents still treat you as a small child. They always try to enforce their will on you.
   You are not allowed to attend late night parties and the clothes of your choice are always disliked by them.

   Write a letter to your parents expressing your feelings about how you would like to be treated. Also emphasize that you will never let them down by your acts or behavior.

   Your letter should be of about 200-250 words.

   You can use the following clues:

- We are grown ups and would like to be treated that way.
- Parents should change with time
- Parents should have faith in their children and understand that they are mature to differentiate between right and wrong.

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FRENCH

The holiday homework comprises of all the components

- Listening
- Reading and writing
- Speaking

Mentioned below are some exercises which would help you enhance these skills further.

- Listening exercise

http://www.bbc.co.uk/schools/gcsebitesize/french/listeningf/f05_list_school_rev1.shtml

- Reading and directed writing

http://www.bbc.co.uk/schools/gcsebitesize/french/readingf/atairportrev1.shtml

- Speaking exercise

http://www.bbc.co.uk/schools/gcsebitesize/french/speakingf/f05_interview_leisure_rev1.shtml

- Attempt the 3 exercises in the notebook. You can take the prints and paste them in the notebooks too.

The holiday homework constitutes a part of the internal assessment of this semester.

LA JOURNEE DE JACQUES.

Je m'appelle Jacques, et je ..... au collège à Paris. Le collège ..... "Pierre Semard"-c'est un collège moderne mais le décor est ennuyeux.

Tous les matins, le premier cours .....à huit heures, donc je quitte la maison à huit heures moins dix, puisque le collège est tout près de chez moi. J'ai quatre cours le matin et quatre cours l'après-midi. Nous ..... deux récréations, l'une après le deuxième cours et l'autre après le sixième. Après le quatrième cours, à midi, on déjeune. Je ..... chez ma grand-mère pour manger, parce que ma mère travaille au centre-ville.

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L'après-midi, on recommence à une heure. Chaque cours dure soixante minutes, donc l'école finit à dix-sept heures - c'est trop tard et je suis toujours très fatigué.

Généralement, j'..... le collège, mais une chose que je n'aime pas c'est qu'il y a mille deux cents élèves et quatre-vingts profs. Je ..... que le collège est trop grand.

Aller, S'appeller, Commencer ,Avoir, Penser , Aimer

Q1. ÉCRIVEZ LA TEXTE ET REMPISSEZ LES BLANCS AVEC LES VERBES DANS LA BOÎTE.
Q2.OÙ EST LE COLLÈGE DE JACQUES? DÉCRIVEZ SON COLLÈGE.
Q3.PENDANT LA JOURNEE, IL Y A COMBIEN DE COURS?
Q4.QU'EST CE- QU'IL N'AIME PAS?

Lis le texte et choisis le bonne réponse.

Bonjour!
Je m'appelle Charlotte Copé. J'ai quatorze ans. J'habite à Lyon, France. J'ai une grande famille. Mon père s'appelle Marc. Il a quarante-cinq ans. Il est architecte. Ma mère s'appelle Claire. Elle a quarante-six ans. Elle est professeur d'anglais. J'ai un frère. Il s'appelle Julien. Julien a seize ans. J'ai aussi deux soeurs. Michèle a douze ans et Onélia a neuf ans. Mon chien s'appelle Azor. Azor a trois ans. Il est noir et blanc. Il adore jouer au parc.
Ma meilleure amie s'appelle Annie. Elle est de Londres! Elle a quinze ans. Moi, j'adore écouter de la musique rock, danser et jouer au tennis. Et toi? Qu'est-ce que tu aimes faire?

Écris-moi vite!

Mon adresse est:
97, allée d'Italie
69364 LYON
FRANCE

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À bientôt!
Charlotte

Charlotte est _____.

- A. anglaise
- B. américaine
- C. canadienne
- D. française

Charlotte a _____ ans.

- A. 16
- B. 15
- C. 14
- D. 12

Annie est _____.

- A. anglaise
- B. américaine
- C. canadienne
- D. française

Annie a _____ ans.

- A. 12
- B. 13
- C. 14
- D. 15

La mère de Charlotte s'appelle _____.

- A. Annie
- B. Claire
- C. Onélia
- D. Michèle

La mère de Charlotte a _____ ans.

- A. 47
- B. 44
- C. 45
- D. 46

Le père de Charlotte s'appelle _____.

- A. Marc
- B. Michèle
- C. Azor
- D. Julien

Le père de Charlotte s'appelle _____.

- A. Marc
- B. Michèle
- C. Azor
- D. Julien

Charlotte a _____.

- A. un frère et une soeur
- B. deux frères et une soeur
- C. un frère et deux soeurs
- D. deux frères et deux soeurs

Le chien de Charlotte s'appelle _____.

- A. Annie
- B. Julien
- C. Marc
- D. Azor

Mes heures de loisirs

Paris, le 4 février

Salut!

Je m'appelle Alain et j'ai treize ans. Je vais t'écrire de mes passe-temps. J'adore jouer au tennis. C'est mon passetemps préféré. Normalement, je le joue chaque jour après le collège.

Je n'aime pas beaucoup regarder la télé – c'est nul! Parfois je regarde des vidéos, surtout des comédies.

Vrai ou faux? (True or false)

1. Alain aime jouer au tennis.
2. Son passetemps préferé, c'est le foot.
3. Il adore regarder la télé.
4. Il déteste lire.

Réponds

1. Qu'est ce qu'il va faire la semaine prochaine? Et avec qui?
2. Où va-t-il?
3. Qu'est ce qu'il éspere acheter?
4. Qu'est ce qu'il va faire le dimanche?

Mes heures de loisirs

Paris, le 4 février

Salut!

Je m'appelle Alain et j'ai treize ans. Je vais t'écrire de mes passe-temps. J'adore jouer au tennis. C'est mon passetemps préféré. Normalement, je le joue chaque jour après le collège.

Je n'aime pas beaucoup regarder la télé – c'est nul! Parfois je regarde des vidéos, surtout des comédies.

Vrai ou faux? (True or false)

1. Alain aime jouer au tennis.

2. Son passetemps préferé, c'est le foot.
3. Il adore regarder la télé.
4. Il déteste lire.

GERMAN

SCHULE

A. **Lesen und dann Antworten den Brief:**

Alle Punkte muss antwortet sein.

Schreiben Sie mindestens 70 bis 80 Wörter

Hallo!

Ich gehe auf eine Realschule. Kannst du mir deine Schule beschreiben? Wie findest du deine Schule?

Gestern habe ich viele Hausaufgaben gemacht. Wie viele Hausaufgaben hast du? Was machst du in den nächsten paar Tagen?

Schreibe bald

*Deine **Susi***

Schreibe:

- Beschreibung deiner Schule
- Wie du deine Schule findest
- Was für Hausaufgaben du gemacht hast
- Deine Pläne für die nächsten paar Tage

_____
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FREIZEIT

B. Schreiben Sie einen Brief an deinen Freund /deine Freundin und sagen was Sie nach der Schule am Abend machen.

Alle Punkte muss antwortet sein.
Schreiben Sie mindestens 70 bis 80 Wörter

Montag	Tischtennis
Dienstag	Bei Gisela
Mittwoch	schwimmen
Donnerstag	fernsehen
Freitag	tanzen

Schreibe:

- Was du jeden Tag machst
- Deine Meinung über die Aktivitäten
- Wie lange du diese Aktivitäten machst
- Deine Pläne für das Wochenende

_____
_____
_____
_____
_____
_____

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DAILY ROUTINE

C. Ergänze:

Beispiel:	Jan (AUFWACHEN) um 7:00 Jan wacht um sieben Uhr auf	

a.	Anja(AUFSTEHEN) um 7:30 Anja …… um	
		

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b. Marianne (SICH WASCHEN)

Marianne ....…… …… im ……

c. Stefan(FRÜHSTÜCKEN)

Stefan…… in der ……

d. Peter (FERNSEHEN) um 8:00

Peter …… um ....

e. Und du?

?

Ich .....

D. **Eigenschaften.** Unten sehen Sie 12 Bilder. Schreiben Sie 2-3 Wörter für jedes Bild; wählen Sie aus der Liste. (There should be several correct answers for each picture.)

dumm • einfallslos • ernst • faul • fleißig • freundlich • froh • gemein • glücklich • intelligent klug • komisch • kreativ • langweilig • locker • lustig • müde • nervös • nett • romantisch sauer • selbstsicher • sportlich • steif • süß • sympathisch • traurig • unfr eundlich • unsicher

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PHYSICAL EDUCATION

Global events happening during the Summer Break. All the areas have to be covered. Including countries participating, country organizing the event, Players/Athletes participating, Best performing country/Player.Etc.,

How does Media play a major role in the promotion and up-liftment of Sports/Games.

HINDI

- अपनी पाठ्यपुस्तक भाषा तरणी के आधार पर पाठ 1 से 5 तक पढ़ने का प्रयास करें और अभ्यास कार्य के प्रश्नोत्तर भाग को संपूर्ण कीजिए।

- अब पछताए होत क्या जब चिड़िया चुग गई खेत' इस उक्ति को आधार बनाकर एक कहानी लगभग 150 शब्दों में लिखें।

- निम्नलिखित फिल्मों को देखकर निम्नांकित बिन्दुओं के आधार पर फिल्म समीक्षा लगभग 150 शब्दों में लिखिए–
  - भाग मिल्खा भाग
  - तारे ज़मीन पर

- ✓ **फिल्म से सीख**
- ✓ मनपसंद चरित्र
- ✓ मनपसंद सीन

नोट– प्रश्न 1 के उत्तर पाठ्य– पुस्तिका में ही करें एवं अन्य दो प्रश्नों के उत्तर अलग से ए 4 साईज पेज पर करें ।

MATHEMATICS

1 Anna, Bobby and Carl receive a sum of money.
They share it in the ratio 12 : 7 : 8.
Anna receives $504.

(a) Calculate the **total** amount.

Answer(a) $ .....

(b) **(i)** Anna uses 7% of her $504 to pay a bill.
Calculate how much she has left.

Answer(b)(i) $ .....

(ii) She buys a coat in a sale for $64.68.
This was 23% less than the original price.
Calculate the original price of the coat.

Answer(b)(ii) $ .....

(c) Bobby uses $250 of his share to open a bank account.
This account pays compound interest at a rate of 1.6% per year.
Calculate the amount in the bank account after 3 years.
Give your answer correct to 2 decimal places.

Answer(c) $ .....

(d) Carl buys a computer for $288 and sells it for $324.
Calculate his percentage profit.

Answer(d) ..... %

2 (a) In a sale, Jen buys a laptop for $351.55.
This price is 21% less than the price before the sale.

Calculate the price before the sale.

Answer(a) $ .....

3.

(a) In Portugal, Miguel buys a book about planets.
The book costs €34.95.
In England the same book costs £27.50.
The exchange rate is £1 = €1.17.

Calculate the difference in pounds (£) between the cost of the book in Portugal and England.

Answer(a) £ .....

b)

In one of the pictures in the book, a rectangle is drawn.
The rectangle has length 9.3 cm and width 5.6 cm, both correct to one decimal place.

(i) What is the lower bound for the length?

Answer(c)(i) ..... cm

(ii) Work out the lower and upper bounds for the area of the rectangle.

Answer(c)(ii) Lower bound = ... cm^2

Upper bound = ... cm^2

4.

In July, a supermarket sold 45 981 bottles of fruit juice.

(a) The cost of a bottle of fruit juice was $1.35 .

Calculate the amount received from the sale of the 45 981 bottles.
Give your answer correct to the nearest hundred dollars.

Answer(a) $

(b) The number of bottles sold in July was 17% more than the number sold in January.

Calculate the number of bottles sold in January.

Answer(b) .....

(c) There were 3 different flavours of fruit juice
The number of bottles sold in each flavour was in the ratio apple : orange : cherry = 3 : 4 : 2.
The total number of bottles sold was 45 981.

Calculate the number of bottles of orange juice sold.

Answer(c) .....

(d) One bottle contains 1.5 litres of fruit juice.

Calculate the number of 330 ml glasses that can be filled completely from one bottle.

Answer(d) .....

(e) $\frac{5}{9}$ of the 45 981 bottles are recycled.

Calculate the number of bottles that are recycled.

Answer(e) .....

5.

Write the following in order of size, smallest first.

0.5^2 0.5 0.5^3 $\sqrt[3]{0.5}$

Answer ..... < ..... < ..... < .....

6.

Carlo changed 800 euros (€) into dollars for his holiday when the exchange rate was €1 = $1.50 .
His holiday was then cancelled.
He changed all his dollars back into euros and he received €750.

Find the new exchange rate.

Answer €1 = $.....

7.

A model of a ship is made to a scale of 1 : 200.
The surface area of the model is $7500\,cm^2$.

Calculate the surface area of the ship, giving your answer in square metres.

Answer ..... m^2 [3]

8.

George and his friend Jane buy copies of the same book on the internet.
George pays \$16.95 and Jane pays £11.99 on a day when the exchange rate is \$1 = £0.626.

Calculate, in dollars, how much more Jane pays.

Answer \$ ..... [2]

9.

Joe measures the side of a square correct to 1 decimal place.
He calculates the **upper** bound for the area of the square as 37.8225 cm^2.

Work out Joe's measurement for the side of the square.

Answer ..... cm [2]

10.

The scale of a map is 1 : 500000.

(a) The actual distance between two towns is 172 km.
Calculate the distance, in centimetres, between the towns on the map.

Answer(a) ..... cm [2]

(b) The area of a lake on the map is 12 cm^2.
Calculate the actual area of the lake in km^2.

Answer(b) ..... km^2 [2]

11.

$p = 4 \times 10^5$ $q = 5 \times 10^4$

Find, giving your answer in standard form,

(a) pq,

Answer(a) ..... [2]

(b) $\frac{q}{p}$.

Answer(b) ..... [2]

12.

The length, l metres, of a football pitch is 96 m, correct to the nearest metre.

Complete the statement about the length of this football pitch.

Answer ..... $\leqslant l <$ ..... [2]

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13.

For her holiday, Alyssa changed 2800 Malaysian Ringgits (MYR) to US dollars ($) when the exchange rate was 1 MYR = $0.325 .

At the end of her holiday she had $210 left.

(a) How many dollars did she spend?

Answer(a) $..... [2]

(b) She changed the $210 for 750 MYR.

What was the exchange rate in dollars for 1 MYR?

Answer(b) 1 MYR = $..... [1]

14.

(a) Write 90 as a product of prime factors.

Answer(a) ..... [2]

(b) Find the lowest common multiple of 90 and 105.

Answer(b) ..... [2]

15.

The length, l metres, of a football pitch is 96 m, correct to the nearest metre.

Complete the statement about the length of this football pitch.

Answer ..... $\leqslant l <$ ..... [2]

INFORMATION AND COMMUNICATION TECHNOLOGY

Editing and Formatting a MS Word Document

Create a MS Word document regarding "TYPES AND COMPONENTS OF COMPUTER SYSTEMS" of approximately two to three pages with the following features-

1) Save this document with a filename with your name, grade and section.
2) Set the page size to A4
3) Set the page orientation to landscape.
4) Place screenshot evidence of the page size in the new word document named Evidence along with your name, grade and section.
5) Set the top, bottom, left and right margins to 2 centimeters.
6) Place screenshot evidence of this margins settings in the Evidence document.
7) Place the header with –
   a) today's date left aligned
   b) Center number and candidate name right aligned.
8) Place the footer with-
   a) automated filename and path left aligned
   b) automated page numbers right aligned
9) On the first page of the document enter the title "TYPES AND COMPONENTS OF COMPUTER SYSTEMS" and subtitle "Created By _____(Add your name).
10) Make the title-
    - Centre aligned
    - Font size 28 point
    - Bold and underlined
11) Make the subtitle-
    - Right aligned
    - Font size 18 point
    - Bold and italics
12) Set the title and subtitle to the same sans-serif font.
13) Format all the text after the subtitle into two equally spaced columns with 1 centimeter.
14) Set all the body text to-
    - Be fully justified
    - A serif 12 point font
    - Single line spacing
15) Set all the subheadings as-
    - Centre aligned
    - Italic
    - Underlined

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- A sans-serif 16 point font

16) Create the list of components and set the bulleted list for this list.

17) Create the table with different Input and output devices with their uses with two columns so that it looks like this-

Name of Input and Output Device	Usage

18) Format the text in the table as body text.

19) Format the top row of the table to be bold and italics.

20) Make sure the table-

- Fits within the column with no text wrap
- Displays an outside border

21) Insert a image related to the topic on the second page left to the second paragraph.

22) Re-size the image to 4 centimeters.

23) Spell-check and proof-read the document.

24) Save the document with the same filename and file format.

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Project-2
Mail Merge

Below is given a master letter and some addresses, this letter is to be sent to all these addresses, so use mail merge option to do so

Addresses are:

1) Amit H No 424 sector 8D Chandigarh
2) Rohit H No 444, Sector 125C Chandigarh
3) Jyoti H NO 550, Sector 16A Chandigarh
4) Rahul H No 332 Sector 6E Delhi
2) Ria H No 544, Sector 25B Gurgaon
3) Jiya H NO 650, Sector 76A Delhi

The Master Letter is-

To

<<Name>>

<<Address>>

Dear <<Name>>

You are called for an interview on the <<Date>>at 9:00 A.M with your original documents.

Yours Sincerely
(your name)
(Director)

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1) Prepare a mailmerge letter using the above master letter save it as the name " MailMerge" with your name, grade and section and the addresses as " Address List" with your name, grade and section as the source data.
2) You will need to insert relevant fields from your data source to replace text in the master document.
3) You will need to replace Date with a field to display today's date in the format dd/mm/yyyy.
4) Add your name as the originator of the letter (Director).

5) Include your Center number and candidate number as the reference for the letter.
6) Proof read and spell check the letter.
7) Place the screenshot of your master document with the fields displayed in the Evidence document.
8) Letters are only required for Chandigarh candidates.
9) Place the screenshot of these selected letters in the Evidence document.
10) Make sure that you have entered your Centre number, candidate number and name on your every merged letter.

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ECONOMICS

- It is compulsory to attempt both sections.
- You may submit your work in a neat project file with your name written on it.
- Make an attractive cover with colourful and informative articles read during the summer break and relating to the IGCSE Economics curriculum.

Section A

1. Make an economics dictionary containing key definitions arranged alphabetically and this should be maintained for the entire two years of learning the IGCSE Curriculum.

Section B

1. Match the key terms to their correct explanations. The first one has been completed for you.

Market economy	An economic system that combines the free market with government planning to allocate resources
Private sector	Sector of an economy in which all organizations are owned and controlled by the government
Price mechanism	The way in which changes in prices influence the spending decision of consumers and the production decision of producers, and therefore how resources are allocated to different uses
Mixed economy	Sector of an economy made up of private individuals and the firms they own
Public sector	Money spent on goods and services by public sector organizations
Market failure	An economic system in which private sector producers and consumers determine the allocation of resources
Public expenditure	These occur when free markets fail to produce goods and services that are worthwhile, and when the decisions of producers or consumers result in wasteful or harmful activities

2. The problem of resource allocation involves providing solutions to three key questions. What are these questions?

   i) .....

   ii) .....

   iii) .....

3. What is the main objective of most private sector firms? .....
4. Which of the following statements about the market economic system are TRUE or FALSE?

	True?	False?
A wide variety of goods and services will be produced to satisfy consumers' wants		
Firms will allocate resources to the production of the most profitable goods and services		
There will always be full employment of resources		
Firms have an incentive to keep their costs of production as low as possible		
Consumers will only get what they want depending on their willingness and ability to pay		
Firms will supply products consumers want even if they do not make a profit		
Firms will supply harmful goods and services if it is profitable to do so		
People with the least ability to pay may be unable to obtain the goods and services they need		
Producers are only interested in profit and may fail to take account of the potentially harmful impact of their activities on other people, producers and the environment		

5. In a market economy, price signals guide the decisions of producers and consumers. The following events describe what is likely to happen in a market economy following an increase in consumer demand for flat-screen televisions. However, the events described are in the wrong order. Place them in their most likely order by assigning each event a number from 1 to 6. The first event in the correct sequence has been identified for you.

Stocks of flat-screen televisions held by retailers and television manufacturers are used up

As the profitability of flat-screen televisions continues to rise, new producers allocate resources to their production

As their prices rise, the production of flat-screen televisions becomes more profitable

① Consumers buy more flat-screen televisions. Sales of other televisions fall

Existing television manufacturers allocate additional resources to the production of flat-screen televisions

To ration the available supply of flat-screen televisions, producers will tend to increase their prices

6. The rise in demand for flat-screen televisions has been at the expense of sales of other types of television. What is likely to happen following the fall in demand for other televisions? Once again, place the sequence of events below in their correct order.

As the profitability of other televisions falls, producers reduce their production

Stocks of all other types of television rise as sales fall. Producers reduce their prices to sell off their stocks

① Sales of other types of televisions fall as consumer demand rises for flat-screen televisions

Resources are moved to the production of flat-screen televisions and away from the production of other types of television

As their prices fall, the production of other televisions becomes less profitable

7. Suggest actions a government could take to try to correct the following market failures.

Market failure	Possible government intervention
Poor and vulnerable people will be unable to afford the goods and services they need	
Harmful products, such as guns and dangerous drugs, may be supplied	
Powerful firms may mislead consumers and restrict competition to force up prices	
People may lose their jobs if it is not profitable to employ them	
Production may harm the natural environment	

.

GEOGRAPHY

Topic: Population

1.(a) Study Fig. 1, which shows the Demographic Transition Model.

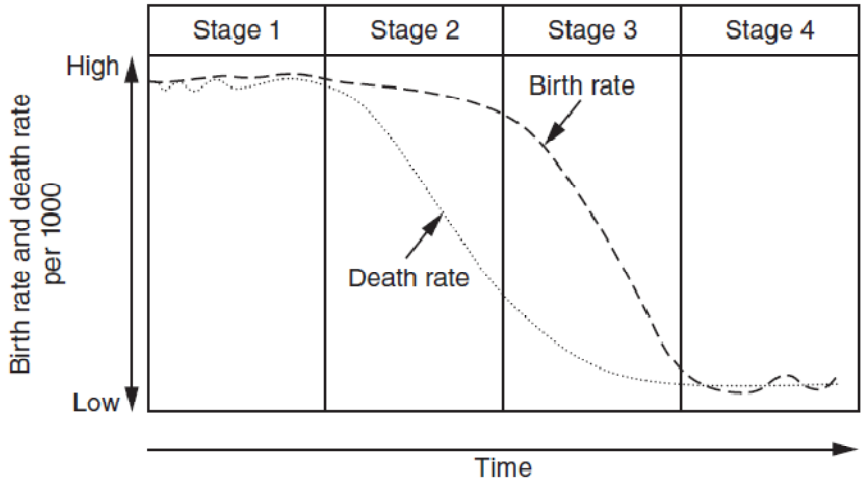

Fig. 1

(i) In which stage of the Demographic Transition Model are both birth rates and death rates high?

.....[1]

(ii) Use evidence from Fig. 1 **only** to explain why the rate of natural increase is high by the end of Stage 2 of the model.

.....

.....

.....[2]

(iii) Give **three** reasons why birth rates have fallen by the time a country reaches Stage 4 of the model.

1 .....

.....

2 .....

.....

3 .....

.....[3]

(iv) Name a country and identify the stage of the Demographic Transition Model which it has reached. Use birth and death rate statistics to justify your answer.

Name of country ..... Stage .....

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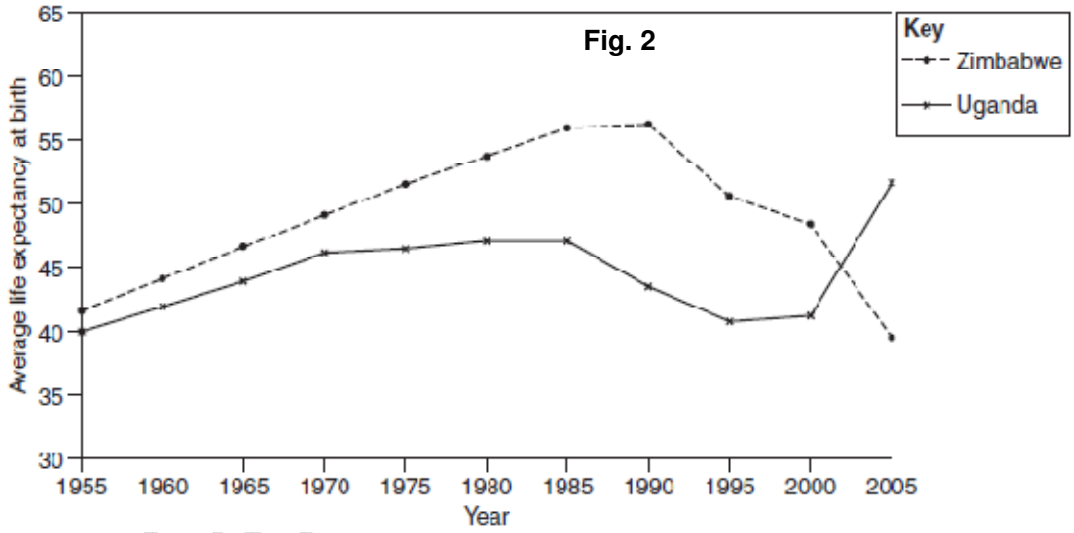
.....[4]

(b) Study Fig. 2, which shows changes in the life expectancy in Uganda and Zimbabwe (LEDCs in Africa) between 1955 and 2005.



(i) Compare the life expectancy of Uganda and Zimbabwe between 1955 and 2005.

.....

.....

.....

.....

.....

.....[3]

(ii) Suggest possible reasons for the changes in life expectancy in **either** Uganda **or** Zimbabwe between 1955 and 2005.

Country chosen .....

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.....[5]

(c) For a named example of a country which you have studied, describe the policies used by the government to reduce natural population growth rates.

Name of country .....

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.....[7]

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Topic: Migration

1.(a) Study Fig. 1, a map showing net migration.

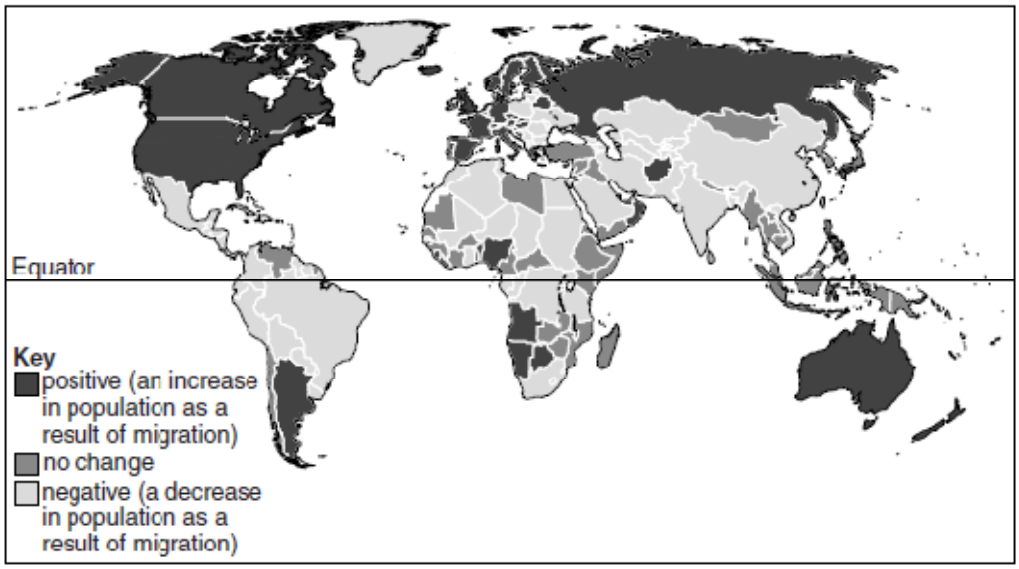

Fig. 1

(i) What is meant by *migration*?

.....

..... [1]

(ii) Identify:

one country with positive net migration in North America;

.....

one country with negative net migration in South America.

..... [2]

(iii) Using evidence from Fig. 1 **only**, compare net migration in Western Europe and Africa north of the Equator.

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..... [3]

(iv) Refer to push factors **only** to explain why many people migrate from LEDCs to MEDCs.

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..... [4]

Topic: Settlement

1. Fig. 1 shows settlements in a rural area.

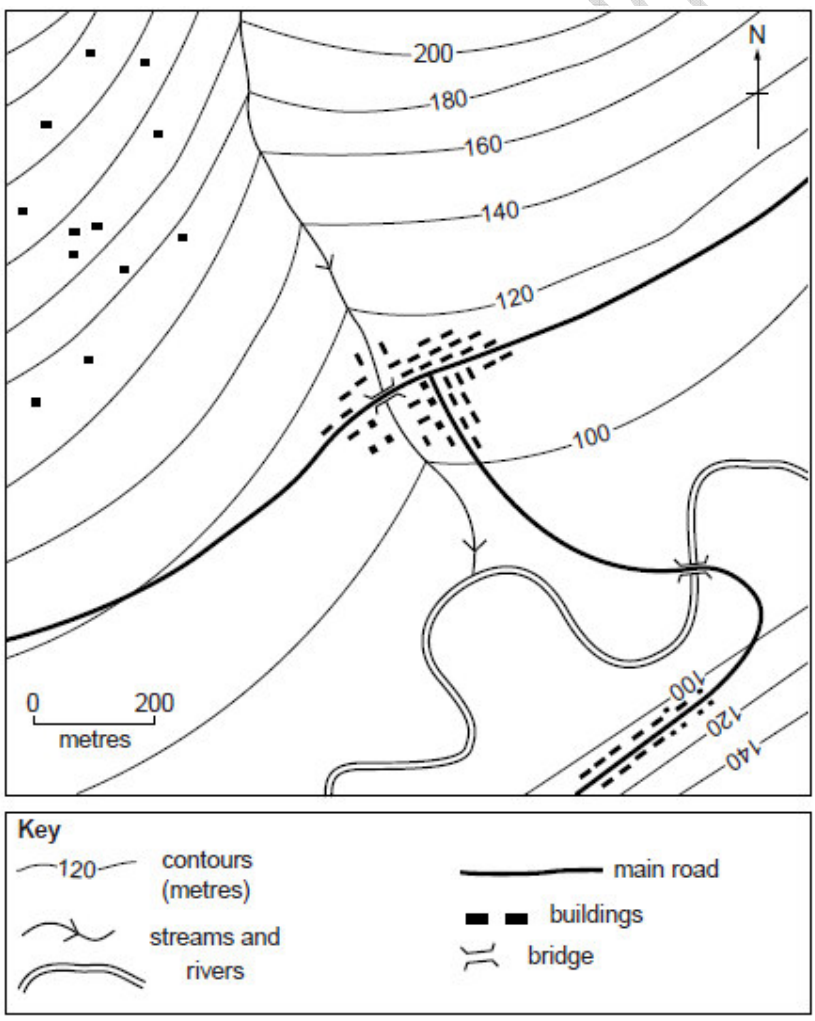

Fig. 1

(a) On Fig. 1 use the letter indicated to mark the position of an area of:

(i) dispersed settlement (D); [1]

(ii) linear settlement (L) [1]

(iii) nucleated settlement (N). [1]

(b) Look at the settlement in the centre of Fig. 1. Explain how the site and position of this settlement have been influenced by each of the following factors:

(i) transport and accessibility;

.....

.....

..... [1]

(ii) water supply;

.....

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..... [1]

(iii) relief and drainage.

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..... [3]

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2. Fig. 2 is a map showing the hierarchy of settlements in an area.

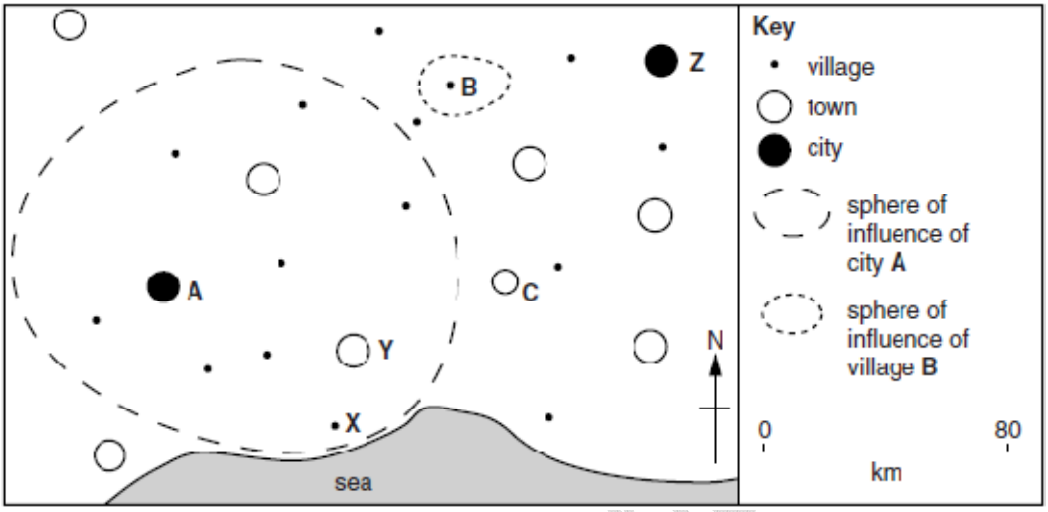

Fig. 2

Fig. 3 shows the number of low order and high order settlements in the area.

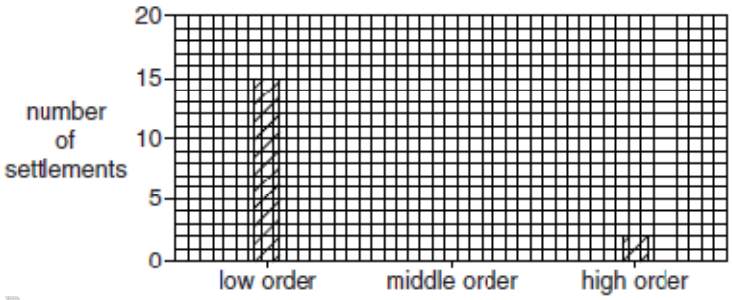

Fig. 3

(a) (i) Using information from Fig. 2, complete Fig. 3 by adding the number of middle order settlements in the area. [1]

(ii) Using Fig. 2, estimate the average

Average distance apart (km)	Tick (✓)
10	
40	
80	
100	

[1]

(b) The sphere of influence is the area served by a settlement. The spheres of influence of city **A** and village **B** are shown on Fig. 2.

(i) On Fig. 2, draw the likely sphere of influence of town **C**. [1]

(ii) Suggest why the sphere of influence of village **B** is small.

.....

.....

..... [1]

(c) Table 1 gives information about where the people who live in village **X**, shown on Fig. 2, go to get some of their services.

Table 1

Service	Settlement where people go for service	Distance travelled to the service	How often the service is used
grocery shop	village **X**	less than 1 km	almost every day
primary school	village **X**	less than 1 km	almost every day
bank	town **Y**	25 km	monthly
clothes shop	town **Y**	25 km	every 2–3 months
furniture store	city **Z**	160 km	once a year
airport	city **Z**	160 km	once a year

(i) Why do the people usually prefer to use the grocery shop and primary school in village **X** rather than in another settlement?

.....

..... [1]

(ii) Why are there no banks and clothes shops in village **X**?

.....

..... [1]

(iii) Give **one** example of a high order service listed in Table 1.

..... [1]

(iv) The people from village **X** prefer to use the furniture store in city **Z**, although the furniture stores in city **A** are closer. Suggest **one** possible reason for this.

.....

.....[1]

COMPUTER SCIENCE

- Project 1-Design a Prezi on number systems explaining different types of number systems as well as method of conversion from one number system to another.
- Project 2- The High school wants to host their Annual Day in their school. They wish to book the auditorium for the same with 500 seats available. The booking will be online for which the parents will be provided the login details followed by booked their seat for the event. Devise formulae for booking the seats in the auditorium using logic gates studied in the class.
- Project 3.

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A washing machine which has several different programs can be set to start working at a specified time. The time to start and the required program are input by a user. The washing machine is controlled by a microprocessor.

(a) Identify two items that would need to be held in read-only memory (ROM).

(b) Identify two items that would need to be held in random access memory (RAM).

The microprocessor controls water input (W), heating (H) and rotation (R). The following table shows the state of these controls for whether or not the washing machine is operating (M).

W	H	R	M
0	0	0	0
0	0	1	0
0	1	0	1
0	1	1	1
1	0	0	0
1	0	1	1
1	1	0	0
1	1	1	1

(c) Use the truth table to state the logical conditions that define when the washing machine is operating and simplify the expression as far as possible.

(d) Construct the logical circuit from the simplified expression you obtained in part (c).

BUSINESS STUDIES

Visit any business house in your vicinity and find out the following details:

-Identify which product/service the business offers and which sector does the business fall into? Identify the sector of the business (Primary/Secondary/Tertiary) also.

- Identify the type of business organization

- Advantages of that type of business organization
- Disadvantages of that type of business organization.
- One example of opportunity cost to the business
- Suggest one way how value can be added to the products/services of the business that you have chosen.
- Identify the areas of specialization, if any.

Present it in the form of a project file/PPT.

BIOLOGY

Q1) Design an experiment to show exosmosis and endosmosis in your choice of material.

This should include materials required, diagrams, and method to carry out the experiment. [10]

Q2) Make a working model on any topic of your choice from Biology. This will be exhibited when the school reopens and will be graded by a panel of science teachers.

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CHEMISTRY

Q.1 Make a working model of any topic of your choice. This will be exhibited when the school reopens and will be graded by a panel of science teachers.

Q.2 Read the Newspapers and collect pictures and information regarding recent developments in the field of chemistry (Any 5). Make a portfolio for it.

Q.3 Make a powerpoint presentation on any one of the topics mentioned below; keeping the following points in mind:

i) Should be of 12-15 slides

ii) Should be informative and innovative

iii) Should have pictures

iv) Two slides should be related to interesting facts on the respective topic.

v) Two slides on the use of the specific topics in daily life or chemical industry.

Topics are:

a. Different states of matter

b. Various Techniques for separating mixtures

c. Atoms and elements

d. Compounds, Mixtures and chemical change

e. The Periodic table- A necessity for chemists

f. Different types of Metals and their uses

Submit it in the pen-drive marked with your name on it.

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PHYSICS

Q1. A person winds some thread tightly 4 times round the length of a metre rule and cuts the ends off level with the left-hand end of the rule, as shown in Fig. 1.1.

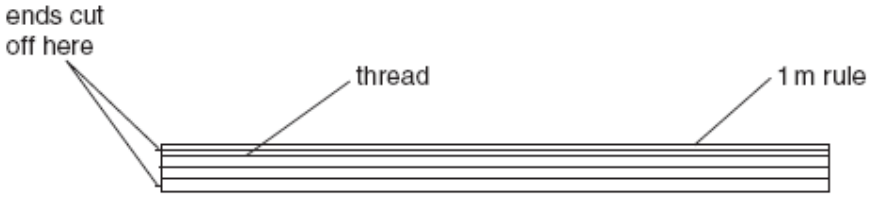

Fig. 1.1

(a) To the nearest metre, what is the length of the thread?
(b) Is the actual length of thread slightly greater or slightly less than your answer to **(a)**? Give reason for your answer in (b).

Q2. Fig 2.1 shows part of a measuring instrument.

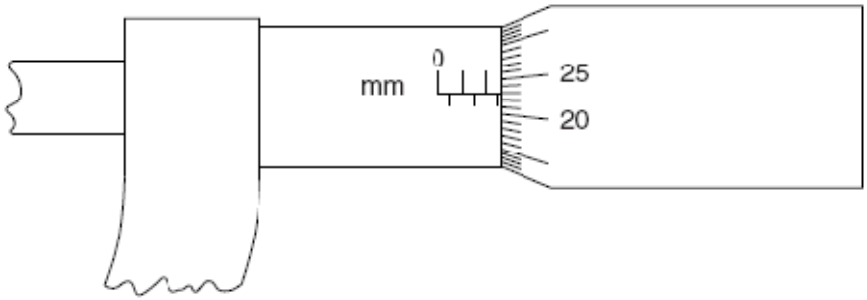

Fig. 2.1

(a) State the name of this instrument.
(b) Record the reading shown in Fig. 2.1.
(c) Describe how you would find the thickness of a sheet of paper used in a magazine.

Q3. The clock on a public building has a bell that strikes each hour so that people who cannot see the clock can know what hour of the day it is. At precisely 6 o'clock, the clock starts to strike. It strikes 6 times. At the first strike of the bell, a man's wrist-watch is as shown in Fig. 3.1. When the bell strikes for the sixth time, the wrist-watch is as shown in Fig. 3.2.

Fig. 3.1

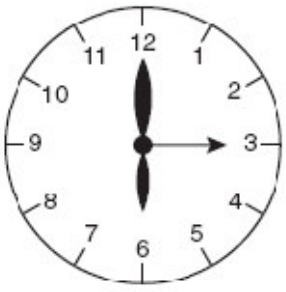

Fig. 3.2

(a) Calculate the time interval between the 1st strike and the 6th strike.
(b) Calculate the time interval between one strike and the next.
(c) At precisely 11 o'clock, the clock starts to strike. Calculate the time interval between the 1st strike and the 11th strike.

Q4. Fig. 4.1 shows the top part of a measuring cylinder containing some liquid.

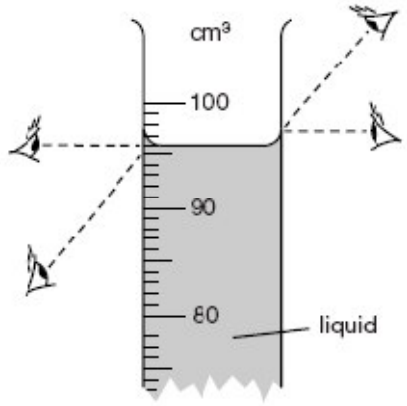

Fig. 4.1

(a) What is the volume of liquid in the measuring cylinder?
(b) Fig. 4.1 indicates four ways the observer's eye could look when taking the reading from the measuring cylinder. Put a circle around the eye position that gives the correct reading.
(c) In order to fill the measuring cylinder up to the 100 cm^3 mark, 80 drops of the liquid are added to the liquid already in the measuring cylinder. Calculate the average volume of one drop.

Q5. (a) An unopened bottle of olive oil has a mass of 0.97 kg. The empty bottle has a mass of 0.51 kg. Calculate the mass of the olive oil.

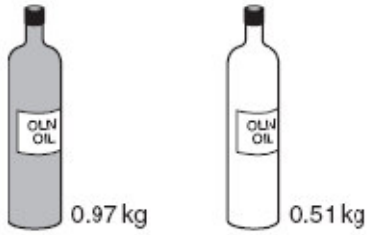

Fig. 5.1

(b) The olive oil is poured into three 250 cm^3 measuring cylinders. The first two cylinders are filled to the 250 cm^3 mark. The third is shown in Fig. 5.2.

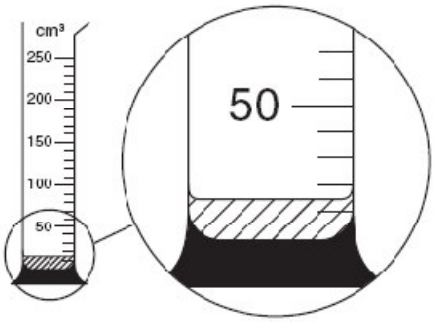

Fig. 5.2

(i) What is the volume of the olive oil in the third measuring cylinder?

(ii) Calculate the volume of the olive oil in the unopened bottle.
(iii) Calculate the density of the olive oil. Express your answer to 2 significant figures.

Q6. A packaging company purchases corrugated cardboard boxes in which to pack its goods. The boxes are not made up when they are delivered, but are flat, as shown in Fig. 6.1.

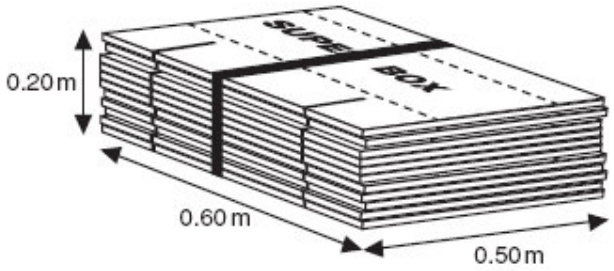

Fig. 6.1

(a) A bundle of these boxes measures 0.60m x 0.50 m x 0.20 m and has a mass of 7.2 kg.
(i) Calculate the volume of the bundle of boxes.
(ii) Calculate the density of the corrugated cardboard.
(b) Corrugated cardboard is made up of 3 sheets of thick paper stuck together. Fig. 6.2 shows an enlarged view of the edge of a sheet of corrugated cardboard.

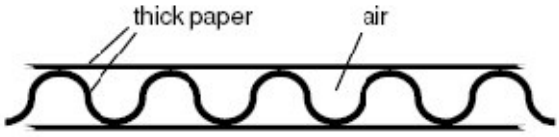

Fig. 6.2

(i) Complete the given incomplete sentence about the paper.
The density of the paper is..... that of the corrugated cardboard.
(ii) Explain your answer to **(b) (i)**.
Q7. In a training session, a racing cyclist's journey is in three stages.
Stage 1 He accelerates uniformly from rest to 12 m/s in 20 s.
Stage 2 He cycles at 12 m/s for a distance of 4800 m.
Stage 3 He decelerates uniformly to rest.
The whole journey takes 500 s.
(a) Calculate the time taken for stage 2.

(b) On the grid of Fig. 7.1, draw a speed/time graph of the cyclist's ride.

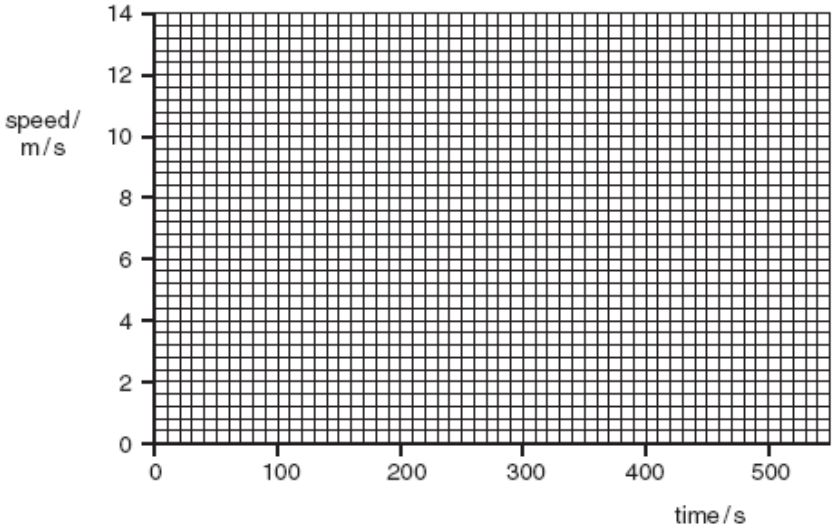

Fig. 7.1

(c) Show that the total distance travelled by the cyclist is 5400 m.
(d) Calculate the average speed of the cyclist.

Q8. Fig. 8.1 shows a model car moving clockwise around a horizontal circular track.

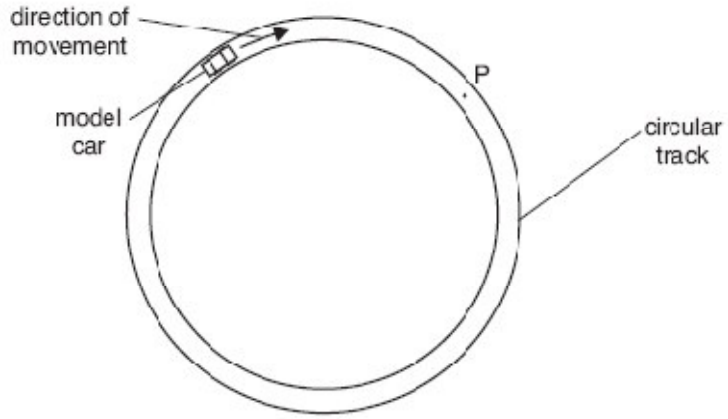

Fig. 8.1

(a) A force acts on the car to keep it moving in a circle.
(i) Draw an arrow on Fig. 8.1 to show the direction of this force.
(ii) The speed of the car increases. State what happens to the magnitude of this force.
(b) (i) The car travels too quickly and leaves the track at P. On Fig. 8.1, draw an arrow to show the direction of travel after it has left the track.
(ii) In terms of the forces acting on the car, suggest why it left the track at P.
(c) The car, starting from rest, completes one lap of the track in 10 s. Its motion is shown graphically in Fig. 8.2.

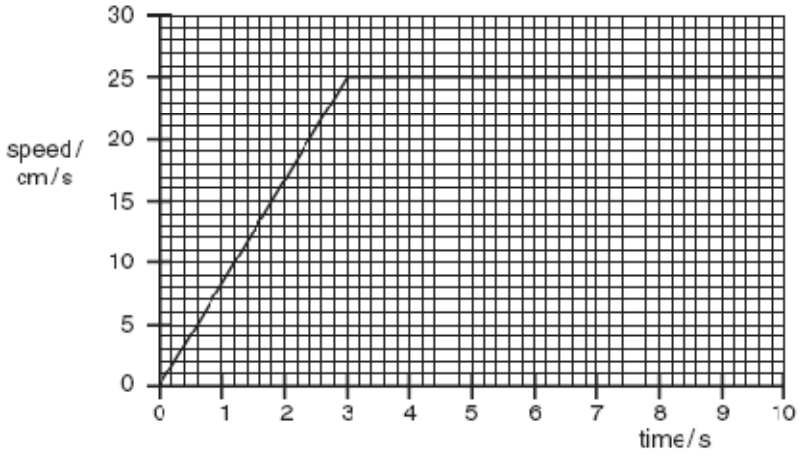

Fig. 8.2.

(i) Describe the motion between 3.0 s and 10.0 s after the car has started.
(ii) Use Fig. 8.2 to calculate the circumference of the track.
(iii) Calculate the increase in speed per second during the time 0 to 3.0 s.

Q9. A bus travels from one bus stop to the next. The journey has three distinct parts. Stated in order they are
uniform acceleration from rest for 8.0 s,
uniform speed for 12 s,
non-uniform deceleration for 5.0 s.
Fig. 9.1 shows only the deceleration of the bus.

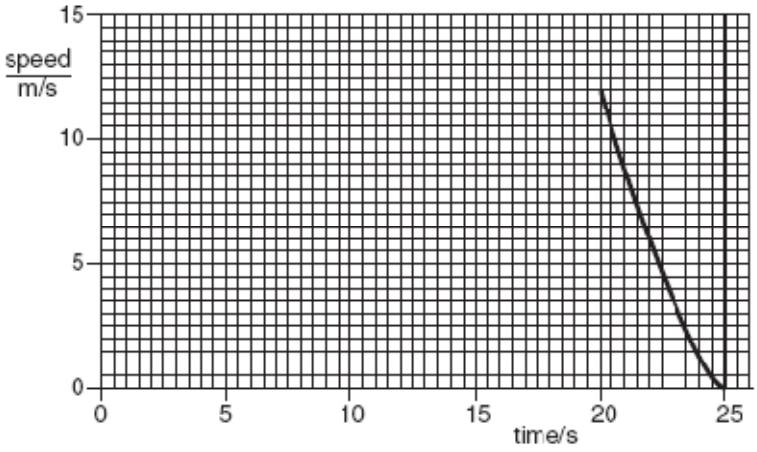

Fig. 9.1

(a) On Fig. 9.1, complete the graph to show the first two parts of the journey. [3]
(b) Calculate the acceleration of the bus 4.0 s after leaving the first bus stop.
(c) Use the graph to estimate the distance the bus travels between 20 s and 25 s.
(d) On leaving the second bus stop, the uniform acceleration of the bus is 1.2 m / s^2. The mass of the bus and passengers is 4000 kg. Calculate the accelerating force that acts on the bus.
(e) The acceleration of the bus from the second bus stop is less than that from the first bus stop. Suggest two reasons for this.

Q10. Fig. 10.1 shows the speed/time graph for a journey travelled by a tractor.

(a) Use the graph to describe the motion of the tractor during each of the marked sections OP, PQ, QR & RS.
(b) Which two points on the graph show when the tractor is stationary?
(c) State the greatest speed reached by the tractor.
(d) For how long was the tractor travelling at constant speed?
(e) State how the graph may be used to find the total distance travelled during the 200 s journey. Do **not** attempt a calculation.

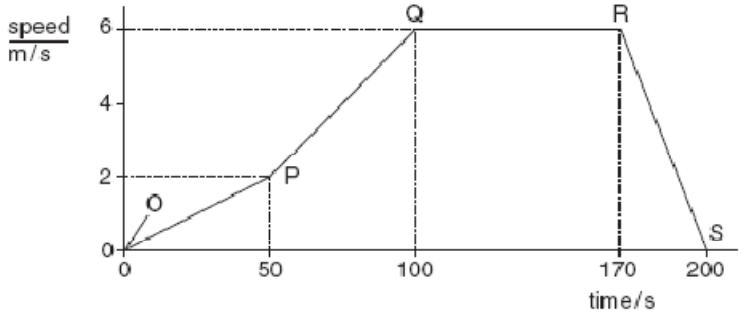

Fig. 10.1

Q11. A stone falls from the top of a building and hits the ground at a speed of 32 m/s. The air resistance-force on the stone is very small and may be neglected.
(i) Calculate the time of fall.
(ii) On Fig. 11.1, draw the speed-time graph for the falling stone.

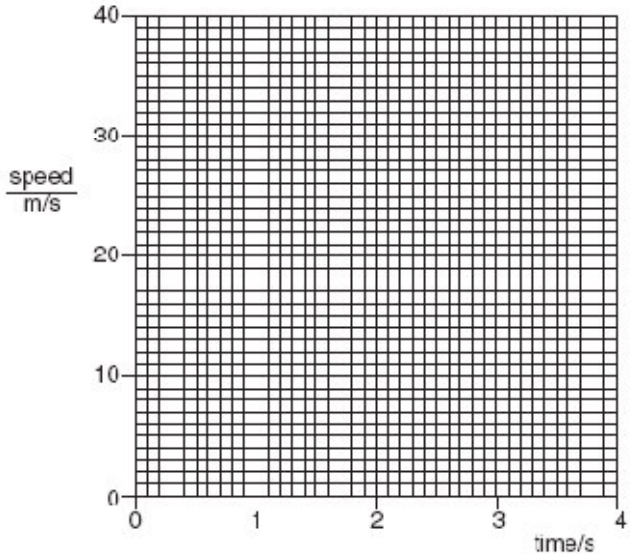

Fig. 11.1

(iii) The weight of the stone is 24 N. Calculate the mass of the stone.

ENVIRONMENTAL MANAGEMENT

Write a case study on mining and its impact on the environment and people.

The case study should have the following points;
1. Region and the mineral mined
2. Methods of mining
3. Impacts on the environment
4. Impact on the people
5. Action taken to reduce the negative impacts on the environment
6. Government steps taken to look after the safety of miners.

The case study should be submitted in a folder. It needs to include
i. not more than 8-10 pages
ii.map, pictures and clippings of the mining site.

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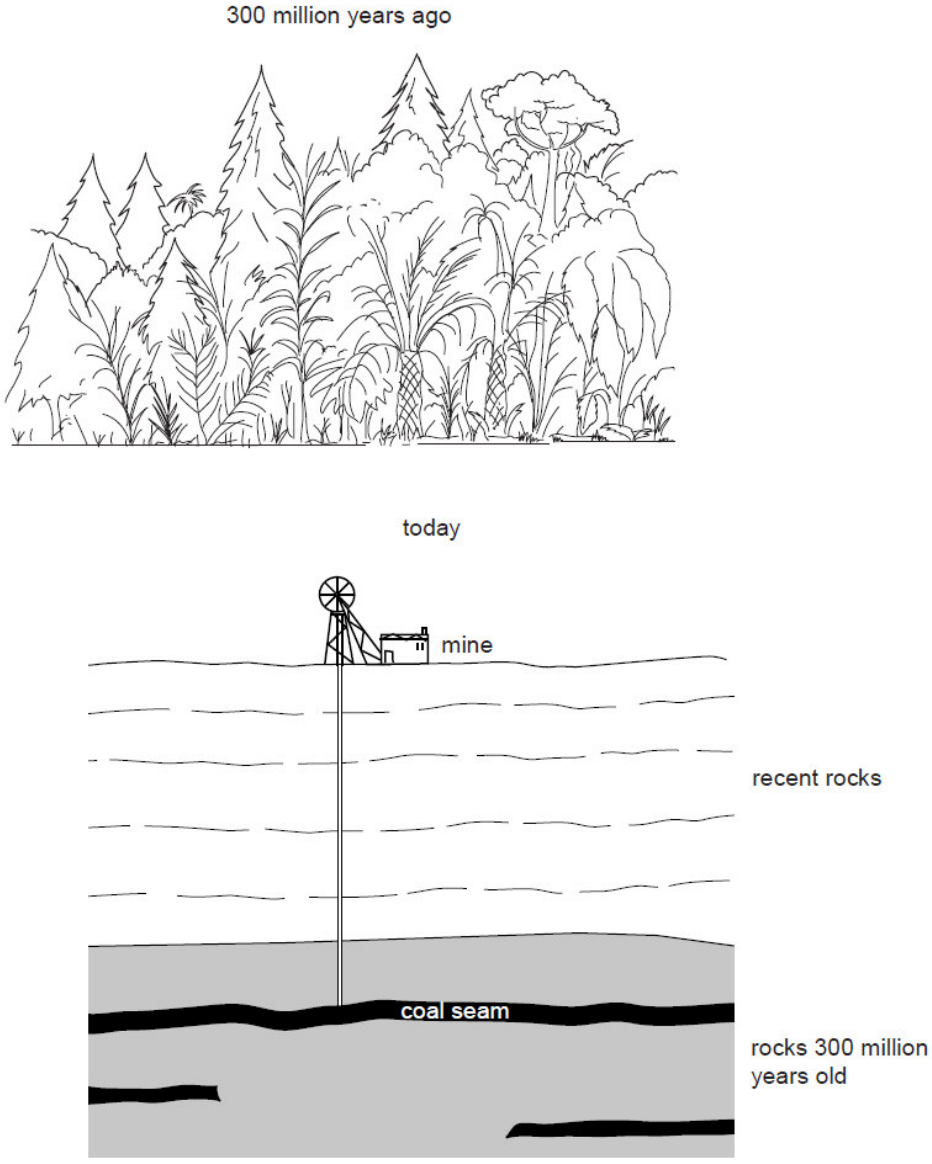
1.(a) The coal that is mined today was formed millions of years ago.



(i) Explain how coal is formed.

.....

.....

.....

.....

.....[3]

(ii) State **two** reasons why coal is called a fossil fuel.

.....

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.....[2]

(iii) Why is carbon dioxide released into the atmosphere when coal is burnt?

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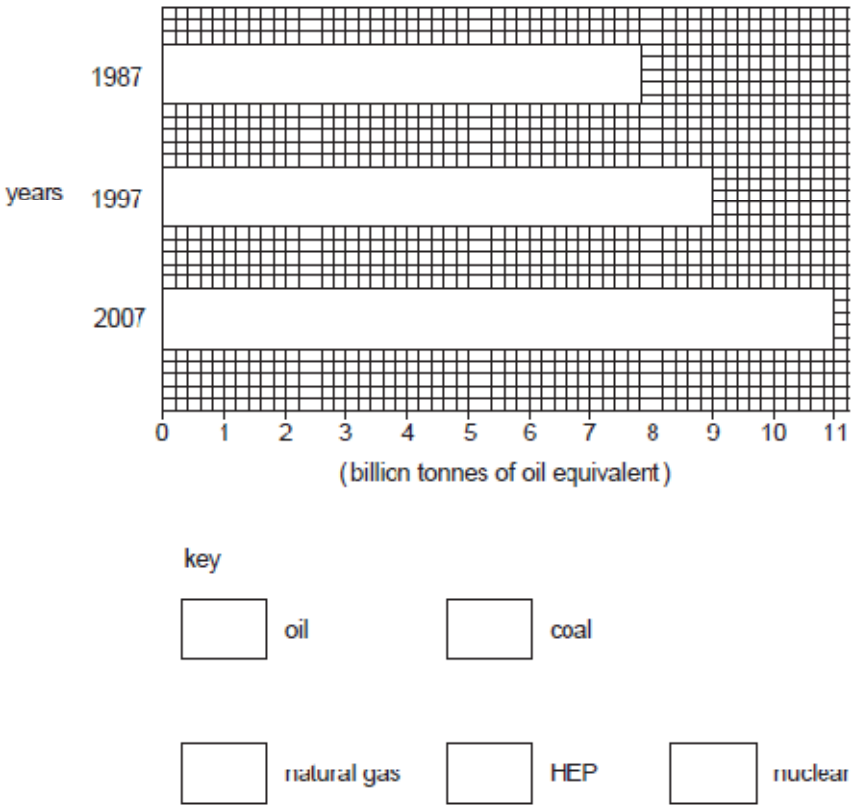
.....[2]

(a) The bar graph shows total world energy consumption in 1987, 1997 and 2



(i) World energy consumption in 2007

(billion tonnes of oil equivalent)

Oil	4.0
Coal	3.1
Natural gas	2.6
HEP	0.7

Nuclear 0.6

Divide up the bar for 2007 to show the values of these five different energy sources. Complete the key to show the shading or colours used. [4]

(ii) Describe how the bar graph shows total world energy consumption has changed since 1987.

.....

.....

.....[2]

(iii) How do the values for 2007 show the great importance of fossil fuels in world energy supply?

.....

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.....[3]

(c) Describe the advantages of oil over coal for

(i) extraction from the ground,

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.....

(ii) transporting to place of use,

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(iii) ease of use.

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.....[6]

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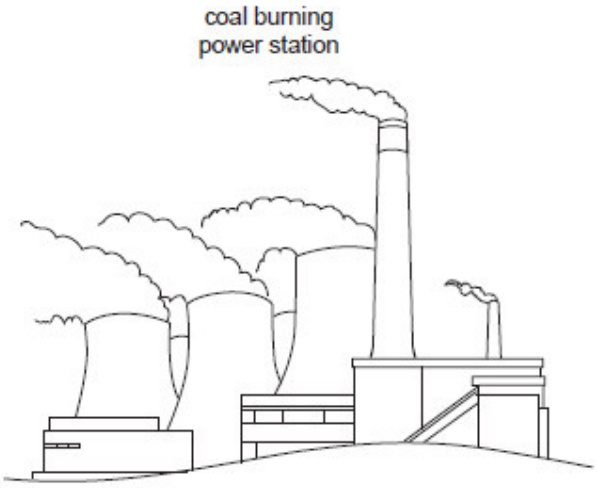
(d) Two energy sources in the UK



full output of an average station 32,000 megawatts of energy a day	full output of one standard sized wind turbine 32 megawatts of energy a day
average output achieved 30,000 megawatts a day	average output achieved 8 megawatts a day
percentage of full output achieved	percentage of full output achieved
on average – 94%	on average – .....

(i) In the space, fill in the average percentage of the full output achieved by a standard wind turbine in the UK. [1]

(ii) Explain the advantages of using coal fired power stations instead of wind turbines for generating electricity in the UK.

.....

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.....[4]

(iii) State the environmental damage caused by coal fired power stations.

.....

.....[2]

(iv) Explain why the air pollution that results is both a local and an international problem.

.....

.....

.....

.....

.....

.....[3]

(e) World top 10 producers of nuclear power (2007)

(million tonnes of oil equivalent for energy produced)

Rank	Country	Amount	Continent
1	USA	192	North America
2	France	100	Europe
3	Japan	63	Asia
4	Russia	36	Europe / Asia
5	South Korea	32	Asia
6	Germany	31	Europe
7	Canada	21	North America
8	Ukraine	20	Europe
9	Sweden	15	Europe
10	China	14	Asia

Source BP Statistical Review of World Energy June 2008

(i) Describe what the table shows about the world distribution of nuclear power production. (You should refer to continents without nuclear power production as well as those with production).

.....

.....

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.....

.....

.....[3]

(ii) Which are the stronger – arguments **for** more use of nuclear power, or arguments **against** more nuclear power use?

State the arguments for and against more nuclear power use, and explain yourview.

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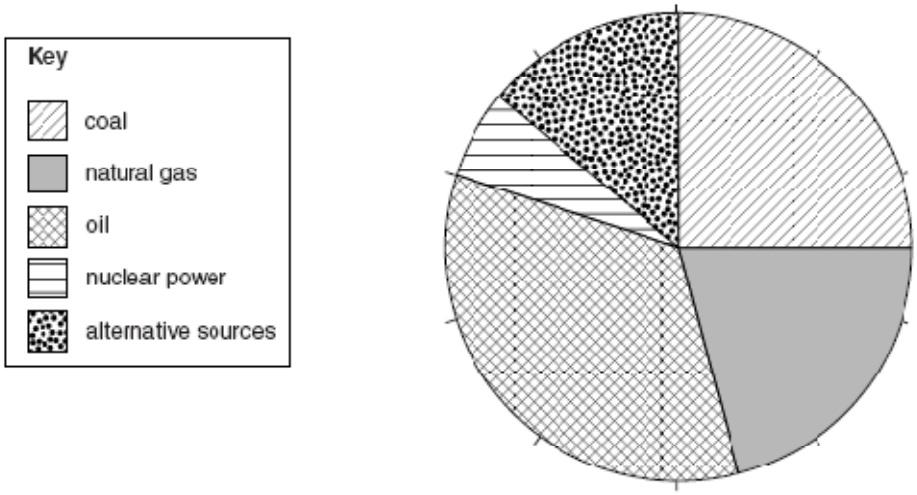
.....[5]

(a) Look at the graph below which shows the percentage of world energy that came from different sources in 2013.



(i) State the energy source that was used most in 2013.

.....[1]

(ii) Calculate the percentage of world energy that came from fossil fuels in 2013.
Space for working.

.....% [1]

(iii) Using evidence from the graph, describe the contribution that alternative energy sources made to world energy in 2013.

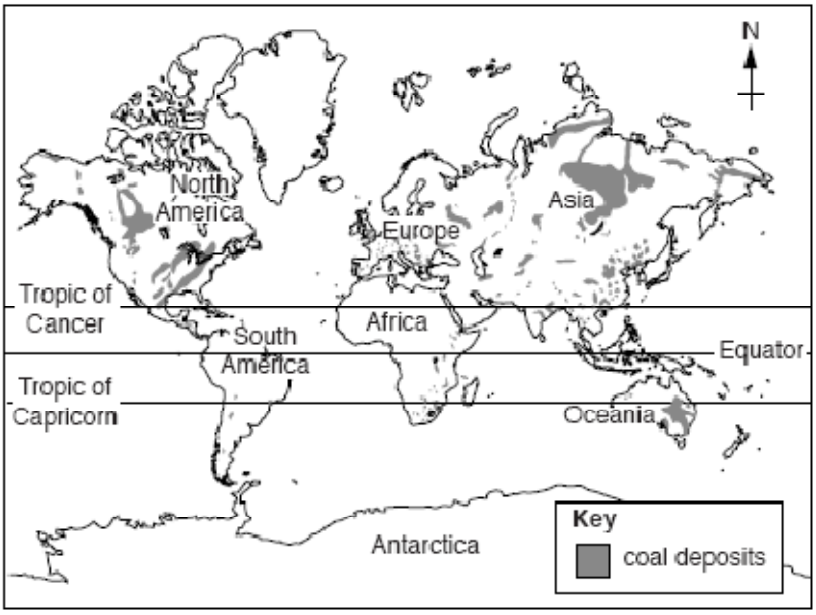
.....

.....

.....

.....[2]

(b) Look at the map, which shows where coal deposits are found in the world.



(i) Describe the distribution of coal deposits shown on the map.

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.....[3]

(ii) Explain how coal was formed.

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.....

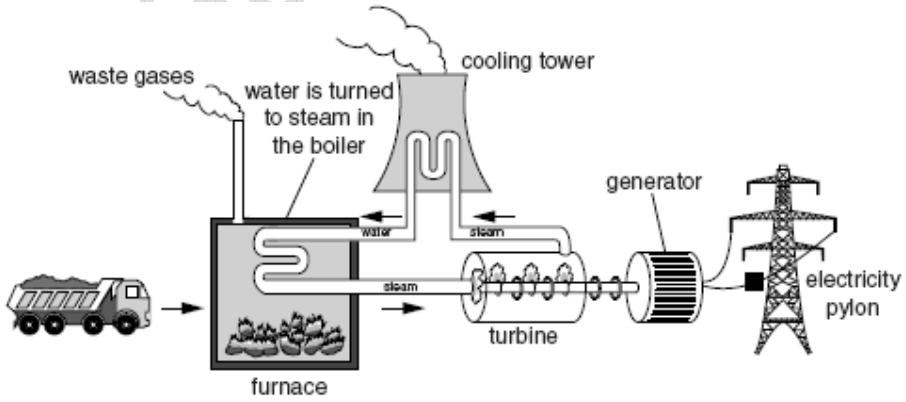
.....[3]

(iii) The table shows information about how fossil fuels are used to generate electricity in the United States of America. Draw a bar graph on the grid below using the data in the table. Label your axes.

fossil fuel	percentage of electrical production
oil	2
gas	25
coal	42

[4]

(c) Look at the diagram, which shows a power station that produces electricity using coal.



(i) Using the diagram, explain how electricity is produced in the power station.

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.....[3]

(ii) Suggest the environmental impacts a power station that uses coal might cause.

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.....[4]

(d) Suggest why countries around the world do not use more alternative energy.

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SPANISH

Modulo 1 (Book Mola)

Pag 6 Exercise 9

Pag 7 Excercise 11

Pag 9 Excercise 15

2 worksheets with the topics seen in class (Libro Hispania)

GD Goenka World School

INTERNATIONAL MATHS

1.

i 18×22 ii 49×51 iii 103×97.

Discovery 1 — *The product of three consecutive integers*

Con was trying to multiply $19 \times 20 \times 21$ without a calculator. Aimee told him to 'cube the middle integer and then subtract the middle integer' to get the answer.

What to do:

1. Find $19 \times 20 \times 21$ using a calculator.
2. Find $20^3 - 20$ using a calculator. Does Aimee's rule seem to work?
3. Check that Aimee's rule works for the following products:
   a $4 \times 5 \times 6$ b $9 \times 10 \times 11$ c $49 \times 50 \times 51$
4. Let the middle integer be x, so the other integers must be $(x-1)$ and $(x+1)$.
   Find the product $(x-1) \times x \times (x+1)$ by expanding and simplifying. Have you proved Aimee's rule?

Read above discovery carefully and find the general result for the following.

(1) Find $20 \times 22 \times 24$ using your calculator.
(2) Find $8(11^3 - 11)$.
(3) Are both the result same?
(4) If yes then find the general result for product three consecutive even numbers.

2.

Activity — Algebraic common factor maze

To find your way through this maze, follow the given instructions. After you have completed the maze you may like to construct your own maze for a friend to follow.

Instructions:

1. You are permitted to move horizontally or vertically but **not** diagonally.
2. Start at the starting term, 12. A move to the next cell is only possible if that cell has a factor in common with the one you are presently on.
3. Try to get to the exit following the rules above.

	$6m$	$2a$	3	$9c^2$	$3c$	c^2	8	$2p^2$	
	$4m$	mn	$6n$	$5c$	25	$5m$	12	$4p$	
	$8y$	xy	2	$6a$	$5a$	mn	$6n^2$	7	
	$7y$	21	$3z$	$5x$	$3y$	y^2	$3p$	p	→ exit
	ab	$7a$	yz	xy	$15x$	xy	p^2	7	
	17	pq	$3q$	q^2	63	$7b$	b^2	6	
start →	12	5	10	$10b$	12	y^2	$9b$	$3b$	
	$6a$	a^2	$5a$	$3a$	$4x$	xy	$2x$	x^2	

1. Do the above given Algebraic common factor maze.
2. Prepare one similar maze on common factors.

3* .Extra credit Activity

Discovery — Pythagorean triples spreadsheet

SPREADSHEET

Well known Pythagorean triples include $\{3, 4, 5\}$, $\{5, 12, 13\}$, $\{7, 24, 25\}$ and $\{8, 15, 17\}$.

Formulae can be used to generate Pythagorean triples.

An example is $2n+1$, $2n^2+2n$, $2n^2+2n+1$ where n is a positive integer.

A spreadsheet can quickly generate sets of Pythagorean triples using such formulae.

What to do:

1 Open a new spreadsheet and enter the following:

- **a** in column A, the values of n for $n = 1, 2, 3, 4, 5, \ldots\ldots$
- **b** in column B, the values of $2n+1$
- **c** in column C, the values of $2n^2+2n$
- **d** in column D, the values of $2n^2+2n+1$.

	A	B	C	D
1	n	a	b	c
2	1	=2*A2+1	=2*A2^2+2*A2	=C2+1
3	=A2+1	↓	↓	↓
4	↓	↓	↓	↓
5		fill down		

	A	B	C	D
1	n	a	b	c
2	1	3	4	5
3	2	5	12	13
4	3	7	24	25
5	4	9	40	41

2 Highlight the appropriate formulae and **fill down** to Row 11 to generate the first 10 sets of triples.

3 Check that each set of numbers is indeed a triple by adding columns to find a^2+b^2 and c^2.

4 Your final task is to prove that the formulae $\{2n+1, 2n^2+2n, 2n^2+2n+1\}$ will produce sets of Pythagorean triples for all positive integer values of n.

Hint: Let $a = 2n+1$, $b = 2n^2+2n$ and $c = 2n^2+2n+1$, then simplify $c^2-b^2 = (2n^2+2n+1)^2-(2n^2+2n)^2$ using the *difference of two squares* factorisation.

For above activity you are advise to use either spreadsheet or GDC table option from MENU.

4.

A INVESTIGATION ADDITIONAL TRIPLES

An addition triple has three **different** numbers.
The numbers (8, 10, 18) form an addition triple because 8 + 10 = 18.
Some other addition triples are (10, 11, 21) and (21, 24, 45).

This investigation explores patterns with addition triples.

Nine addition triples can be found from the list of integers 1, 2, 3, 4, 5, 6, 7.
One of these triples is (3, **4**, 7).

Write down the other eight addition triples in the spaces provided.
[Note that (3, 4, 7) and (4, 3, 7) are the same addition triple.]

(..... , ... , ...)

(..... , ... , ...)

(..... , ... , ...)

(..... , ... , ...)

(..... , ... , ...)

(..... , ... , ...)

(..... , ... , ...)

(..... , ... , ...)

(3 , 4 , 7)

5.

Complete the table, showing the addition triples for each list of integers.
In the last column write the total number of triples.

Number of integers	List of integers	Addition triples	Total number of addition triples
3	1, 2, 3	(1, 2, 3)	1
4	1, 2, 3, 4		2
5	1, 2, 3, 4, 5		
6	1, 2, 3, 4, 5, 6		
7	1, 2, 3, 4, 5, 6, 7	Leave this blank – do not write your answer to question 1 again.	9
8	1, 2, 3, 4, 5, 6, 7, 8		12

6.

Look at the pattern in the last column in the table on page 3.
Use it to complete the following table.

Number of integers	3	4	5	6	7	8	9	10	11	12	13	14	15
Number of addition triples	1	2			9	12	16	20		30			

7.Using question 6

complete the following table when there is an **odd** number of integers in the list.

Number of integers	3	5	7	9	11	13	15
Number of addition triples	1		9	16			

8. For the table in question 4

the same three arithmetic operations **always** take you from the number of integers in the list to the corresponding number of addition triples.

The first operation is **subtract 1**.

Find the other two operations.
Show that these three operations take you
from 7 integers in the list to 9 addition triples,
and from 9 integers in the list to 16 addition triples.

9. Using question 4, find

(a) the number of addition triples when there are 101 integers in the list,

(b) the number of integers in the list when there are 11 449 addition triples,

.....

(c) an expression for the number of addition triples when the list has n integers and n is odd.

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ESL

1. Write about rain , a rainy day or absence of rain in your city. Make your composition as descriptive as possible by using the five senses. Write about 200 words .Use a separate scrap book for your work.

2. Cut articles from newspaper ,paste them in your scrap book and give your own opinion about each of them .(minimum ten articles)

3. Watch any English movie of your interest and give a review of it in your own words. Also explain why and what you liked about it

4. Make a PPT on any two topics out of the following:

a. Should mobile phones be allowed in classrooms

b. What rules do students break that teachers never find out about?

c. Online education

d. The stress associated with being a student.

5. Read any book of your choice and write about its characters and plot.

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HISTORY

Make a powerpoint presentation on **Nazi Rule in Germany**

The PPT should include the following:

- role the SS played in controlling the Nazi state.
- education policies of the Nazis in German schools
- the role of the women in Nazi Germany
- role of the Hitler Youth movement
- culture and mass media in Nazi rule
-

The presentation should include 10-12 slides covering all the aspects

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Global Perspectives

Each candidate carries out research on a global question devised from the specified list of topics for component **B**.

1. Each candidate must devise their own question. The candidate uses the global research question as the title for their report.
   (For example, the report could be based on the topic of the digital world. The research could focus on the following global question: Given the relatively brief history of the internet, how much has it contributed to society?)
   2. Candidates explore issues within the topic, and answer their global research question from local and/or national and global perspectives. They conclude their report by indicating how their research has impacted their personal perspective.
   3. Candidates may structure their report in equally valid and different ways. They might consider the situation in their own country and locality depending on the availability of relevant evidence. 4. As a conclusion, they might explore the effects on society giving their personal perspective in response to their question and using evidence from their research.

The students have to submit a hard copy of the report. The word limit is 1500-2000 words. They will be marked on the following criteria:

1. The research question framed? (should be of global importance)
2. The answer to the research question (showing sufficient research)
3. Personal perspective

They will be marked out of 25.

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