



DHAI EDUCATION SYSTEM

SECTOR F DHA PHASE-II ISLAMABAD PK

SECONDARY / A LEVEL SECTION



ACADEMIC YEAR 2019 - 2020

HOME WORK

SUMMER VACATION

2020

IGCSE-II/GRADE 9

(Science Group)



DHAI EDUCATION SYSTEM

SECTOR F DHA PHASE-II ISLAMABAD PK

SECONDARY / A LEVEL SECTION



HOME WORK SUMMER VACATION
2020

IGCSE-II/ GRADE 9

Index

Table of Contents

Homework Instructions	1
English	2
Mathematics	3
Biology/Computer Science.....	4
Physics.....	5
Chemistry	6



DHAI EDUCATION SYSTEM

SECTOR F DHA PHASE-II ISLAMABAD PK



SECONDARY / A LEVEL SECTION

HOME WORK SUMMER VACATION 2020

Homework Instructions:

- 1 Due to variety of subjects' combinations all the subjects are compiled in a single file. Students are advised to do the work of the subjects they are taking in their respective classes.
- 2 Students have to complete their work as per their teachers' instructions.
- 3 The homework is compiled for two complete months; April and May, and the weekly breakup is done.
- 4 Students must submit their work to their respective teachers on given email addresses, already provided in the homework, within following time frames:
N.B: Late submission will not be accepted.
 - First two weeks' work: April 16 to April 19, 2020
 - Second two weeks' work: May 01 to May 05, 2020
 - Next two weeks' work: May 18 to May 20, 2020
 - The last two weeks' work: June 02 to June 05, 2020
- 5 Homework would carry 50% weighting for getting the child promoted into his/her next grade. The other 50% would be taken together from the first and the second term assessments held till the time of school's closure that is March 15, 2020.
- 6 Students are encouraged to contact their teachers for assistance required to do their homework.

Ms Samra Ambreen

HEAD; Secondary/A Level Section



DHAI EDUCATION SYSTEM

SECTOR F DHA PHASE-II ISLAMABAD PK



SECONDARY / A LEVEL SECTION

HOME WORK SUMMER VACATION
2020

ENGLISH

Week 1&2

Music

- 1 Music is a universal form of communication, cutting across all periods of history and all regions of the planet. Human beings were probably inspired to produce music by the sounds they heard in the world of nature, like birdsong and animal cries, which formed the background of their daily existence. Even in primitive times, music played an important part in the social life of the community – events like birth, marriage and death had their own individual and appropriate music. The earliest written representations of musical sound are found in India, providing a beginning for a study of the history of music, and instruments such as flutes and various types of stringed instruments have been recovered from archaeological sites there. Because it has the power to touch individuals according to the moods and situations in which they find themselves, people have also always found music to be useful on a personal level. 5
10
- 2 A particularly poignant story which demonstrates the power of music is told about the 24th of December 1914. Many European countries had been engaged for four months in a war which was to continue for almost another four years, but the soldiers in one part of the battlefield, remembering that this was the night before Christmas, turned their thoughts away from war towards a celebration of this important Christian festival. Imagine the astonishment of the British soldiers when the sound of Christmas songs being sung by enemy German soldiers drifted towards them on the clear night air. Moved by the music, although fearful at first, men who had earlier in the day been fighting against each other stepped from their hiding places. The language barrier was somehow broken down, enabling limited conversations to take place. The soldiers spontaneously put down their weapons, exchanging food gifts and even playing football together. The Christmas Truce, as it came to be called, has come to represent the endurance of human beings in the face of adversity, and music played an important role. 15
20
- 3 Perhaps the most important turning point in the history of music was the invention of recorded sound. In 1877 Thomas Edison invented the phonograph, and this was the beginning of the recording industry as we know it today. The phonograph – a machine which played back sounds – was hailed as a great scientific breakthrough and there was a chaotic rush to invent other recording devices. These inventions often overlapped. It is hard to imagine the interest which was aroused in improving the recording of sound, and Edison was seen as one of the great scientific figures of the century. Inventors were frequently involved in angry disputes to be acknowledged as the official inventor of some improvement or other. Nowadays, a mere one hundred and fifty years or so after its invention, recorded music affects millions of people and involves vast amounts of money per year. It employs thousands of people, including musicians, sound engineers and salespeople. Thomas Edison began a technology boom which he could not even have begun to imagine. 25
30
- 4 Recorded sound brings a wide range of music to ordinary people who, in the past, would have been confined to the one or two sorts of music which characterised their tribe or their region. Recorded music crosses boundaries and cultures – if you want to investigate the music of, say, Sri Lanka or Kenya, it is easy to do so by a trip to your music shop or even by surfing the internet. Moreover, air travel has become more frequent and its inexpensiveness means that people can attend cultural shows in far-flung holiday destinations and buy recordings of the music of the countries they visit. Before the invention of recorded music, people might have played or listened to live music in their own homes, but in families without either musical instruments or the skill to play them, this would clearly not have been possible. However, access to recordings enables ordinary people nowadays to hear music as often as they like, without needing to own or be able to play an instrument. The fact that buying recorded music is generally cheaper than attending live performances is another attraction. 35
40
45



DHAI EDUCATION SYSTEM

SECTOR F DHA PHASE-II ISLAMABAD PK



SECONDARY / A LEVEL SECTION

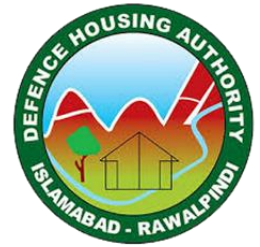
HOME WORK SUMMER VACATION 2020

-
- 5 As far as musicians themselves are concerned, recorded music has brought about a revolution. In the past, musicians played only in live performances, where wrong notes might be played, but now that recordings can be corrected a perfect version of the original can be achieved. Furthermore, although members of a live audience may spoil a performance with, say, a fit of uncontrollable coughing or their mobile phone ringing, this cannot happen in a recording studio. In cultures where music was not written down, it could be forgotten and consequently lost, along with its capacity to give pleasure to many people. Now a recording captures it for ever; moreover, the efficiency of recording studios means that this can be done in a single afternoon. 50
- 6 However, Thomas Edison, were he to come back to our planet as a time traveller, might not agree that the invention of recorded sound has brought nothing but good to music. It could be argued that people have become so used to listening to recorded sound in the privacy of their own homes that they have no motivation to attend concerts of live music. Why should you buy a concert ticket and trudge out in the rain to the venue when you can listen to a perfect version of your favourite music in your own living room? When people do attend live performances, they are so used to the 'flick of a switch' approach to music that they have lost any sense of wonder at its creation. At many concerts of popular music, the audience wanders in and out of the auditorium, returning at times to listen to a favourite song or instrumental piece. The easy availability of high-quality recorded music may also discourage some people, especially the young, from learning to play musical instruments. Is it not likely that potential talent will be left undiscovered because of the invention of recorded music? 55
- 7 Often, when music is recorded, the focus becomes the musician and not the music. This is particularly true of popular music aimed at young audiences. When disproportionate attention is directed towards the musician, this can result in pop stars commanding outrageously high incomes. Because the world of pop music is usually more about image than talent, recording stars are not necessarily the best musicians, although the young people who buy their recorded music might be deluded into thinking that they are. How many times are we bombarded by images of glamorous pop idols staring at us from magazines or the pages of national newspapers? Their spouses, their holidays, their homes, their clothes, their hairstyles ... greedy editors decide that we have to be told about these, whether we like it or not. And often we don't! Young people are frequently under pressure to purchase not only recordings of their music, but expensive merchandise such as posters, DVDs and T-shirts. In addition, sometimes these pop stars have a negative effect on their young audiences by being poor role models for them in the kind of lives that they lead, often at odds with the lifestyles advocated by the young people's parents. 70
- 8 Throughout history, music has had many functions, ranging from providing aesthetic pleasure to religious or ceremonial purposes. In our own time, the advent of the internet has transformed our experience of music, because it affords us both increased access and increased choice. Think of such diverse activities as primitive man sounding a horn while hunting his prey, a mother soothing her baby with a lullaby, or the school orchestra at the end-of-term concert, and you have a glimpse of the importance of music down through the ages. 75
-



DHAI EDUCATION SYSTEM

SECTOR F DHA PHASE-II ISLAMABAD PK



SECONDARY / A LEVEL SECTION

HOME WORK SUMMER VACATION 2020

Read the passage in the insert and then answer **all** the questions which follow below.

You are recommended to answer the questions in the order set.

Mistakes in spelling, punctuation and grammar may be penalised in any part of the Paper.

From paragraph 1:

- 1 (a) Why, according to the writer, is music a 'universal' form of communication? [1]
- (b) According to the writer, what probably inspired human beings to produce music? [1]
- (c) What feature of early Indian music provides 'a beginning for a study of the history of music'? [1]
- (d) Apart from the role that music has played in the 'social life of the community', what is the other important function of music? [1]

From paragraph 2:

- 2 (a) Why would the soldiers be 'fearful' at first? [1]
- (b) Why would the conversations between the soldiers be 'limited'? [1]
- (c) Pick out and write down the **single** word which shows that the Christmas Truce was not planned. [1]
- (d) What, according to the writer, has the Christmas truce 'come to represent'? Answer **in your own words**. [2]

From paragraph 3:

- 3 (a) Why did the phonograph mark the beginning of the recording industry? [1]
- (b) In what **two** ways was the rush to invent other recording devices 'chaotic'? Number your answers (i) and (ii). [2]
- (c) Recorded music affects millions of people 'a mere one hundred and fifty years or so' after its invention. What does the use of the word 'mere' suggest about the writer's attitude to the effects of recorded music? [1]

From paragraph 4:

- 4 Why are ordinary people able to visit 'far-flung holiday destinations'? [1]

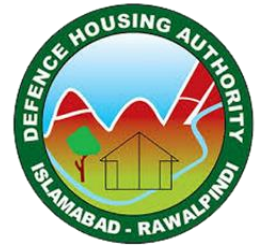
From paragraph 6:

- 5 What, according to the writer, is the result when young people are discouraged from playing musical instruments? [1]



DHAI EDUCATION SYSTEM

SECTOR F DHA PHASE-II ISLAMABAD PK



SECONDARY / A LEVEL SECTION

HOME WORK SUMMER VACATION 2020

From paragraph 7:

- 6 (a) Explain in your own words why pop stars 'are not necessarily the best musicians'. [2]
- (b) What, according to the writer, do editors hope to gain by publishing information about pop stars? [1]

From paragraph 8:

- 7 Explain in your own words the ways in which the internet has 'transformed our experience of music'. [2]

8 From the whole passage:

Choose **five** of the following words or phrases. For each of them give **one** word or short phrase (of not more than **seven** words) which has the same meaning that the word has in the passage.

- | | |
|--------------------------|---------------------------|
| 1. individual (line 5) | 5. aimed at (line 69) |
| 2. moods (line 9) | 6. outrageously (line 70) |
| 3. hailed (line 26) | 7. negative (line 79) |
| 4. investigate (line 37) | 8. advent (line 83) |

[5]

Week 3

Discursive Writing

At what age should children be allowed to have a [cellphone](#)? Give reasons and examples to support your view.

Week 4

Directed writing

Task: Your class has decided to celebrate end of the school year by visiting a place. You are the class prefect, your teacher has asked you to write a letter to the parents of your class mates to explain your plans

Write a letter. You must include the following:

- When and where your class is going and the details of your travel arrangement.
- Why your class has chosen this place what you will do there
- How the students in your class will benefit from the trip.



DHAI EDUCATION SYSTEM

SECTOR F DHA PHASE-II ISLAMABAD PK



SECONDARY / A LEVEL SECTION

HOME WORK SUMMER VACATION 2020

Week 5

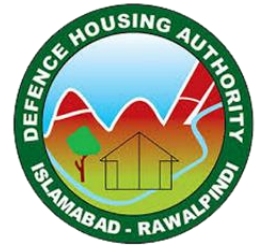
A Nightmare Journey

- 1 'Come on, Rose, relax!' laughed Jameela to her room-mate. 'I'm only going out for two hours. You can't study all the time!' But Rose was not to be dissuaded; with only one week until the university examinations, the proposed cinema trip, like all Jameela's recent diversions, was out of the question. In any case, although Rose's parents never referred to the sacrifices they were making to allow her to attend university, how could they ever be far from her mind? Jameela's typically unrealistic attitude towards time was demonstrated by her return four hours later, just as Rose was packing up her books and preparing for bed. 5
- 2 As the girls went to their classes the next morning, Jameela took Rose's arm affectionately. 'It's great that our parents are paying for us to have a trip home after the exams,' she said. 'I've been thinking about plane and train timetables and I suggest you leave the arrangements to me. It's too difficult for you.' Rose fought against her annoyance at Jameela's insult and decided to ignore it. 'She's probably right,' she mused, 'and, anyway, why should I make work for myself?' 10
- 3 That evening Rose's head was buried in her notes as the door of the room was thrown open and Jameela made her usual dramatic entrance. She was carrying a large shopping basket, from which peeped the provisions she had earlier promised to buy for their evening meal. From the doorway she kicked her sandals across the room in a flamboyant gesture. 'Well, that's that!' she exclaimed happily, brandishing a fistful of tickets, before flopping into the room's only armchair. 'There's nothing left to do except pass the exams, and we're off!' 15
- 4 The ensuing fortnight passed in a whirlwind of studying and examinations. Jameela's friend, Nizam, arrived to take the girls to the airport in his car, which spluttered and wheezed, as if it were not even certain itself that it was capable of such a task. 'Please, climb in, ladies,' he said, untying the piece of string which held the car's back door in place. 'Cool luggage,' he continued, nodding towards Jameela's decrepit and battered orange rucksack; its straps were so frayed that they were held together with tape, and several sweaters bulged from its top. At the same time he cast a disparaging eye over Rose's little suitcase, bought especially for this journey home. After a bumpy ride to the airport, the girls had a smooth flight, and were set to begin the next stage of their journey, which was to make their way to Central Station in the city centre to catch the express train to their home town. 25
- 5 As soon as the girls got off the plane at Terminal One, Rose pointed to a sign indicating that buses for Central Station left, not from this part of the airport, but from Terminal Two; they began to move as quickly as they could, a brisk walk at first and then a comfortable jog. A notice at the bus stop informed them that buses departed only every thirty minutes. A glance at their watches told them that a bus had just left – in fact, they could see its brake lights as it negotiated the corner. 'Not to worry,' said Jameela cheerfully. 'The local train station is just downstairs and we can travel from there to Central Station. I much prefer trains to buses.' 'At least there wasn't a queue for the automatic ticket machine,' thought Rose, as she and Jameela unzipped their bags to find money for the fare, before discovering that the machine accepted only credit cards and not cash. Smiling in order to conceal their embarrassment, the girls turned away. A long queue of people snaked in front of them, and they realised that this was the queue for the ticket office. 35 40



DHAI EDUCATION SYSTEM

SECTOR F DHA PHASE-II ISLAMABAD PK



SECONDARY / A LEVEL SECTION

HOME WORK SUMMER VACATION 2020

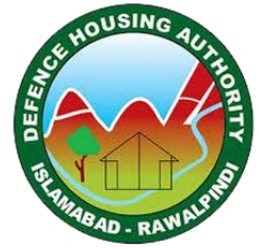
- 6 Eventually, clutching their tickets, the girls hurled themselves onto the elderly little train which would take them to Central Station. Sitting beside the door, her luggage at her side, Rose felt some of her tension leave her. 'Why not look on the journey as an adventure? Why couldn't she be more like Jameela?' These soothing thoughts were interrupted by disturbing ones that the train had already made several stops; in fact, it seemed to be stopping every kilometre or so. She had to remind herself that this was no express train; this was a train merely to serve the local community. Furthermore, the train was becoming increasingly busy; crowds got on, but nobody left; the girls' faces were pressed into the backs of standing passengers as the train crawled along the track. Apprehensively, the girls held onto their luggage; they had heard stories of pickpockets and thieves on busy local transport. Hunger pangs made Rose's stomach rumble; despite Jameela's confidence in her own organisational skills, she had forgotten to include a lunch break in their travel plans. 'Rose,' said Jameela awkwardly, 'I'm beginning to think we might miss the connecting train home. The train leaves Central Station at 7.07pm. I completely underestimated how long it would take us to transfer from the airport' Her voice tailed off into embarrassment. 45
- 7 Rose surprised them both by taking the initiative. 'The next stop is North Station. If we stay until Central, we'll definitely miss the train, and it's the last one home today. Let's get off at North and take a taxi.' Jameela stared at her in amazement; they both knew that poor students could not afford taxis. But Jameela was in no position to argue; her credibility lay in tatters. Carried by the crowd surging up the station steps, the girls followed the exit signs. It was 6.45pm. But their chosen exit brought them out at the back of the station, where there was no taxi rank. It was then that the frayed straps of Jameela's 'cool' rucksack snapped. Pedestrians jostled past, as the rucksack's contents spread all over the ground. 'Quickly!' shouted Rose, removing a plastic bag from her suitcase. 'Shove everything in here!' They then had to dash to the front of the station. It was 6.49pm. 'Can you get us to Central Station in fifteen minutes?' gasped Jameela. The driver indicated by an arrogant toss of his head that such a task would be no problem to a city gent like him. Who were these provincial girls anyway, with their out-of-town accents? 60
- 8 He accelerated violently away from the kerb. The girls closed their eyes as he recklessly wove through traffic, narrowly avoiding parked vehicles and pedestrians; he occasionally glanced at the girls to see if they were impressed by his driving prowess. When his mobile phone rang, he conducted an animated conversation with the caller, laughing uproariously at his own jokes and arranging a meeting for the following evening. 'That's if he lives until tomorrow,' thought Rose grimly. 65
- 9 At 7.02pm, the taxi stopped at Central Station, the driver smug that they had arrived with two minutes to spare. Luckily, the girls' train was leaving from Platform 3, which was near the main entrance. They ran at great speed down the platform. Rose followed some metres behind Jameela, aware that they were attracting a lot of attention, not only from passengers on the train but also from those on other platforms. But why was Jameela suddenly running back down the platform towards her? At that point, with sickening clarity, Rose realised that access to the train was on the other side; the carriage doors on this side were locked! A further frantic sprint down the correct side of the platform followed, but they made it with seconds to spare. 70
- 10 At the start of the train journey, Rose showed her exasperation with her friend by being uncommunicative. Furthermore, when Jameela spoke to her she avoided eye contact, but then she began to see the funny side. Little flashbacks from the nightmare journey replayed in her memory – the train packed to capacity, the jaunty rucksack no longer fit for purpose, Jameela's fists thumping on the wrong side of the carriage.... And suddenly she was doubled up with laughter. She read fear in Jameela's eyes. What would Rose tell Nizam about the rucksack? What would she tell Jameela's parents about her work rate that year? 75

'Don't worry, Jameela. We've been friends for so long. Let's keep it that way,' Rose smiled. 80



DHAI EDUCATION SYSTEM

SECTOR F DHA PHASE-II ISLAMABAD PK



SECONDARY / A LEVEL SECTION

HOME WORK SUMMER VACATION 2020

The girls had a nightmare journey from the airport to the express train.

Using your own words as far as possible, write a summary of the difficulties and anxieties the girls encountered from the time they reached the airport until the time they got onto the express train at Central Station in the city centre.

USE ONLY THE MATERIAL FROM LINE 30 TO LINE 83.

Your summary, which must be in continuous writing (not note form), must be between 160-180 words, including the 10 words given below.

When the girls reached Terminal One they soon realised that...

Week 6-8

Students are required to read one book over the Summer Break. It must be based on either a biography, an autobiography or a fiction.

Students should complete the biography card for the biography or autobiography, or novel card for the fictional piece of writing.

Biography Card Grade 10

Book Title:

Author:

Interest Rating (5 as highest): 1 2 3 4 5

Directions: Answer all of the following questions in complete sentences on your own sheet of paper. Your answers should be well-thought-out and range between 7-10 sentences for *each* question. Always cite specific passages from the text to support your answers. You will need to submit this page along with your answer page.

1. What is the biggest challenge that the main character faced, and how did he or she overcome this challenge?
2. What impact has the main character made on society?
3. What characteristic / personality trait do you feel you share with the main character? Why?



DHAI EDUCATION SYSTEM

SECTOR F DHA PHASE-II ISLAMABAD PK



SECONDARY / A LEVEL SECTION

HOME WORK SUMMER VACATION
2020

Novel Card Grade 10

Book Title:

Author:

Genre (circle one): adventure drama fantasy mystery nonfiction
 sci-fi horror romance comedy biography

Interest Rating (5 as highest): 1 2 3 4 5

Directions: Answer all of the following questions in complete sentences on your own sheet of paper. Your answers should be well-thought-out and range between 7-10 sentences for *each* question. Always cite specific passages from the text to support your answers. You will need to submit this page along with your answer page.

1. What is the point or theme the author wishes to convey? Which characters and events help to prove that message to be true? How?
2. How does point of view affect the development of the book?
3. Explain how the protagonist changes as a result of the conflict(s) she or he faces.

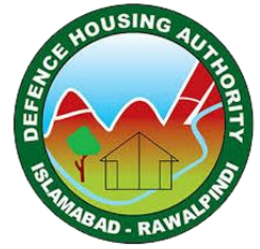
Contact information

Teacher: Sadaf Umer
Contact number: 03334800959
Email: sadaf.umer@des.edu.pk



DHAI EDUCATION SYSTEM

SECTOR F DHA PHASE-II ISLAMABAD PK



SECONDARY / A LEVEL SECTION

HOME WORK SUMMER VACATION
2020

MATHEMATICS

Contact information

Teacher: Mr Samar Abbas
Contact Number: 03455173672
Email: samar.abbas@des.edu.pk

Week 1: (1st April – 5th April 2020)

0580 Mathematics November 2019, Question paper 11

Q # 1, 3, 4, 6, 7, 9, 10, 12, 13, 14, 15, 16, 17, 19, 22, 23,

0580 Mathematics November 2019, Question paper 12

Q # 1, 2, 4, 7, 8, 9, 10, 11, 13, 15, 16, 17, 18, 20, 22

Week 2: (6th April – 12th April 2020)

0580 Mathematics November 2019, Question paper 13

Q # 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 16, 18, 21

0580 Mathematics November 2019, Question paper 21

Q # 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 15, 17, 18, 24

0580 Mathematics November 2019, Question paper 22

Q # 1, 2, 3, 5, 6, 7, 9, 11, 12, 14, 15, 20, 21

0580 Mathematics November 2019, Question paper 23

Q # 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 15, 20

Week 3: (13th April – 19th April 2020)



DHAI EDUCATION SYSTEM

SECTOR F DHA PHASE-II ISLAMABAD PK



SECONDARY / A LEVEL SECTION

HOME WORK SUMMER VACATION 2020

0580 Mathematics November 2019, Question paper 31

Q # 3, 4, 6

0580 Mathematics November 2019, Question paper 32

Q # 2, 3, 9

0580 Mathematics November 2019, Question paper 33

Q # 1, 2, 4, 5, 7

0580 Mathematics June 2019, Question paper 11

Q # 1, 2, 3, 5, 6, 7, 9, 11, 13, 14, 15, 18, 22

Week 4: (20th April – 26th April 2020)

0580 Mathematics June 2019, Question paper 12

Q # 1, 2, 3, 10, 11, 15, 16, 17, 18, 19, 20, 21, 23

0580 Mathematics June 2019, Question paper 13

Q # 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 14, 16, 17, 19, 20, 25

0580 Mathematics June 2019, Question paper 21

Q # 1, 2, 3, 5, 6, 10, 12, 13, 14, 15, 16, 18, 19, 20, 26

0580 Mathematics June 2019, Question paper 22

Q # 1, 5, 6, 8, 9, 10, 12, 13, 14, 15, 17, 19, 20

Week 5: (27th April – 3rd May 2020)

0580 Mathematics June 2019, Question paper 23

Q # 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 14, 15, 17, 18

0580 Mathematics June 2019, Question paper 31



DHAI EDUCATION SYSTEM

SECTOR F DHA PHASE-II ISLAMABAD PK



SECONDARY / A LEVEL SECTION

HOME WORK SUMMER VACATION 2020

Q # 1, 2, 8, 9

0580 Mathematics June 2019, Question paper 32

Q # 1, 3, 8

0580 Mathematics June 2019, Question paper 33

Q # 3, 9

Week 6: (4th May – 10th May 2020)

0580 Mathematics November 2018, Question paper 11

Q # 1, 2, 3, 4, 6, 9, 13, 15, 16, 18, 20, 21, 22, 23

0580 Mathematics November 2018, Question paper 12

Q # 1, 2, 3, 4, 5, 8, 12, 13, 15, 16, 17, 19, 20

0580 Mathematics November 2018, Question paper 13

Q # 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 16, 18, 19, 20, 21, 24, 25, 26

0580 Mathematics November 2018, Question paper 21

Q # 1, 4, 5, 7, 9, 10, 12, 14, 15, 16, 17, 18, 19, 23

Week 7: (11th May – 17th May 2020)

0580 Mathematics November 2018, Question paper 22

Q # 1, 3, 4, 5, 6, 8, 9, 10, 16, 17, 18, 20, 21, 25

0580 Mathematics November 2018, Question paper 23

Q # 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 15, 16, 17, 18, 19, 20, 22, 25

0580 Mathematics November 2018, Question paper 31

Q # 2, 3, 8, 9



DHAI EDUCATION SYSTEM

SECTOR F DHA PHASE-II ISLAMABAD PK



SECONDARY / A LEVEL SECTION

HOME WORK SUMMER VACATION 2020

0580 Mathematics November 2018, Question paper 32

Q # 1, 2, 3, 5, 9

Week 8: (18th May – 24th May 2020)

0580 Mathematics November 2018, Question paper 33

Q # 1, 5, 6

0580 Mathematics June 2018, Question paper 11

Q # 1, 2, 3, 5, 6, 7, 8, 9, 11, 13, 14, 15, 17, 18, 19, 22, 23, 24, 25

0580 Mathematics June 2018, Question paper 12

Q # 1, 2, 3, 4, 5, 9, 10, 11, 13, 17, 18, 19, 20, 21, 22, 24

0580 Mathematics June 2018, Question paper 13

Q # 1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14, 17, 18, 20, 22, 23

Week 9: (25th May – 31st May 2020)

0580 Mathematics June 2018, Question paper 21

Q # 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 15, 22, 23, 24

0580 Mathematics June 2018, Question paper 22

Q # 1, 2, 5, 8, 10, 12, 14, 15, 18, 25

0580 Mathematics June 2018, Question paper 23

Q # 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 17, 18, 19, 21



DHAI EDUCATION SYSTEM

SECTOR F DHA PHASE-II ISLAMABAD PK



SECONDARY / A LEVEL SECTION

HOME WORK SUMMER VACATION
2020

BIOLOGY

Contact information

Teacher: Maimona Imran
Contact number: 03222222572
Email: imranmaimona@gmail.com

Week 1

Human reproduction

1. Sexual reproduction in humans

- Identify and name on diagrams of the male reproductive system: the testes, scrotum, sperm ducts, prostate gland, urethra and penis, and state the functions of these parts.
- Identify and name on diagrams of the female reproductive system: the ovaries, oviducts, uterus, cervix and vagina, and state the functions of these parts.
- Describe fertilisation as the fusion of the nuclei from a male gamete (sperm) and a female gamete (egg cell/ovum).
- Compare male and female gametes in terms of size, structure, motility and numbers.

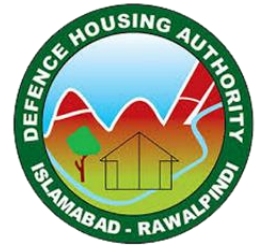
Week 2

- State and explain the adaptive features of sperm, limited to flagellum, mitochondria and enzymes in the acrosome.
- State and explain the adaptive features of egg cells, limited to energy stores and the jelly coat that changes at fertilisation.
- State that in early development, the zygote forms an embryo which is a ball of cells that implants into the wall of the uterus.



DHAI EDUCATION SYSTEM

SECTOR F DHA PHASE-II ISLAMABAD PK



SECONDARY / A LEVEL SECTION

HOME WORK SUMMER VACATION 2020

- State and describe the functions of the amniotic sac and amniotic fluid, placenta and umbilical cord in relation to exchange of dissolved nutrients, gases and excretory products and providing a barrier to toxins and pathogens (structural details are not required).

Week 3

- State that some toxins, e.g. nicotine, and pathogens, e.g. rubella virus, can pass across the placenta and affect the fetus
- Outline the growth and development of the fetus in terms of increasing complexity in the early stages and increasing size towards the end of pregnancy.
- Describe the ante-natal care of pregnant women, limited to special dietary needs
 - Outline the processes involved in labour and birth, limited to
 - breaking of the amniotic sac o contraction of the muscles in the uterus wall
 - dilation of the cervix o passage through the vagina
 - tying and cutting the umbilical cord afterbirth.
- Discuss the advantages and disadvantages of breast-feeding compared with bottle-feeding using formula milk.

Week 4

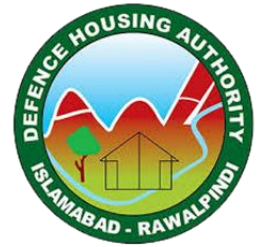
Sex hormones in humans

- Describe the roles of testosterone and oestrogen in the development and regulation of secondary sexual characteristics during puberty.
- Describe the sites of production of oestrogen and progesterone in the menstrual cycle and in pregnancy.
- Describe the menstrual cycle in terms of changes in the lining of the uterus and ovaries.



DHAI EDUCATION SYSTEM

SECTOR F DHA PHASE-II ISLAMABAD PK



SECONDARY / A LEVEL SECTION

HOME WORK SUMMER VACATION 2020

Week 5

- Explain the role of hormones in controlling the menstrual cycle and pregnancy, limited to FSH, LH, progesterone and oestrogen.

Methods of birth control in humans

- Outline the following methods of birth control:
 - natural, limited to abstinence,
 - monitoring body temperature and cervical mucus
 - chemical,
 - limited to IUD, IUS, contraceptive pill, implant and injection o barrier,
 - limited to condom, femidom, diaphragm
 - surgical, limited to vasectomy and female sterilisation.
- Outline the use of hormones in contraception and fertility treatments.
- Outline artificial insemination (AI).

Outline in vitro fertilisation (IVF).

Week 6

- Discuss the social implications of contraception and fertility treatments.

Sexually transmitted infections (STIs)

- Define sexually transmitted infection as an infection that is transmitted via body fluids through sexual contact.
- State that human immunodeficiency virus (HIV) is an example of an STI.
- Explain how the spread of STIs is controlled.
- Describe the methods of transmission of HIV.
- State that HIV infection may lead to AIDS.



DHAI EDUCATION SYSTEM

SECTOR F DHA PHASE-II ISLAMABAD PK



SECONDARY / A LEVEL SECTION

HOME WORK SUMMER VACATION 2020

- Outline how HIV affects the immune system, limited to decreased lymphocyte numbers and reduced ability to produce antibodies.

Week 7

Inheritance

- Define inheritance as the transmission of genetic information from generation to generation.

Learners to come up with a possible definition of inheritance.

Overview – genes and inheritance: www.abpischools.org.uk/page/modules/genome/index.cfm

Chromosomes, genes and proteins

- Define chromosome as a thread-like structure of DNA, carrying genetic information in the form of genes.
- Define gene as a length of DNA that codes for a protein.
- Define allele as a version of a gene.
- Describe the inheritance of sex in humans with reference to XX and XY chromosomes.
- Explain that the sequence of bases in a gene is the genetic code for putting together amino acids in the correct order to make a specific protein (knowledge of the details of nucleotide structure is not required).

Week 8 Do all MCQ ,THEORY questions of reproduction from this website:

<https://www.savemyexams.co.uk/igcse-biology-cie-new/topic-questions/>



DHAI EDUCATION SYSTEM

SECTOR F DHA PHASE-II ISLAMABAD PK

SECONDARY / A LEVEL SECTION



HOME WORK SUMMER VACATION
2020

COMPUTER SCIENCE

Contact information

Teacher: Asifa Ahmed
Contact number: 03215077766
Email: Asifa.ahmed@des.edu.pk

Revise all the chapters from 1 to 9 and solve the following Past Papers

2016 May/ June Paper 12, Paper 11

2017 May/ June Paper 12, Paper 11

2018 May/ June Paper 12, Paper 11

2019 May/ June Paper 12, Paper 11

2016 Oct/ Nov Paper 12, Paper 11

2016 Oct/ Nov Paper 12, Paper 11

2016 Oct/ Nov Paper 12, Paper 11

2016 Oct/ Nov Paper 12, Paper 11

Note: you can download these papers from the following link

<https://papacambridge.com/cie/sy-gp-ms/igcse/computer-science-0478/>



DHAI EDUCATION SYSTEM

SECTOR F DHA PHASE-II ISLAMABAD PK



SECONDARY / A LEVEL SECTION

HOME WORK SUMMER VACATION
2020

PHYSICS

1. Learn all the formulae from your course book
(Cambridge IGCSE Physics Course book (Third Edition) by Tom Duncan
page # 1 and 167.
2. Thoroughly revise the following chapters:

Contact information

Teacher: Muhib Ahmed
Contact number: 03315659939
Email: muhib.ahmad@des.edu.pk

Week 1 & 2

Section 1: General physics

Measurements and motion

1. Measurements
2. Speed , velocity and acceleration
3. Graphs of equation
4. Falling bodies
5. Density

Forces and momentum

6. Weight and stretching
7. Adding forces
8. Force and acceleration
9. Circular motion
10. Moments and lever
11. Centers of mass
12. Momentum

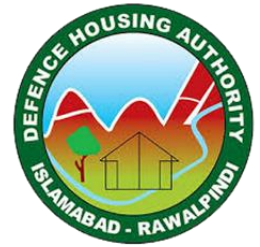
Energy, work, power and pressure

13. Energy transfer
14. Kinetic and potential energy
15. Energy Sources
16. Pressure and liquid pressure



DHAI EDUCATION SYSTEM

SECTOR F DHA PHASE-II ISLAMABAD PK



SECONDARY / A LEVEL SECTION

HOME WORK SUMMER VACATION
2020

Week 3 & 4

Section 2: Thermal physics

Simple kinetic molecular model of matter

- 17. Molecules
- 18. The gas laws

Thermal properties and temperature

- 19. Expansion of solids, liquids and gases
- 20. Thermometer
- 21. Specific heat capacity
- 22. Specific latent heat

Thermal processes

- 23. Conduction and convection
- 24. Radiation

Week 5 & 6

Section 3: Properties of waves

General waves properties

- 25. Mechanical waves

Light

- 26. Light rays
- 27. Reflection of light
- 28. Plane mirror
- 29. Refraction of light
- 30. Total internal reflection
- 31. Lenses
- 32. Electromagnetic radiation

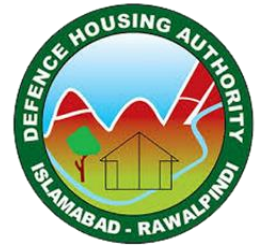
Sound

- 33. Sound waves



DHAI EDUCATION SYSTEM

SECTOR F DHA PHASE-II ISLAMABAD PK



SECONDARY / A LEVEL SECTION

HOME WORK SUMMER VACATION
2020

Week 7 & 8

Section 4: Electricity and Magnetism

Simple phenomena of magnetism

34. Magnetic fields

Electrical quantities and circuits

- 35. Static electricity
- 36. Electric circuit
- 37. Potential difference
- 38. Resistance

Attempt all the chapter exercise questions, related to chapter # 1-38 (including all the parts)

3. Attempt all the questions, related to chapter # 1-38 (including all the parts), from the following papers (use lead pencil).
 - May/Jun 2016 (Structured Questions)
 - Oct/Nov 2016(Structured Questions)
 - May/Jun 2017 (Structured Questions)
 - Oct/Nov 2017 (Structured Questions)
 - May/Jun 2018 (Structured Questions)
 - Oct/Nov 2018 (Structured Questions)
 - May/Jun 2019 (Structured Questions)
 - Oct/Nov 2019(Structured Questions)

References: Book: IGCSE Physics Course book (Third Edition) by Tom Duncan
www.savemyexams.com (related worksheets), www.xtremepapers.com (for past papers)



DHAI EDUCATION SYSTEM

SECTOR F DHA PHASE-II ISLAMABAD PK



SECONDARY / A LEVEL SECTION

HOME WORK SUMMER VACATION
2020

CHEMISTRY

Instructions for Homework task:

- Do all homework in neat copies.
- Week should be mentioned on top as heading.
- Complete questions should be written with the answers.
- Homework will be assessed in first week of June and carry 50% weightage for the student to get promoted to the next grade.
- If find any difficulty, feel free to contact at 0334-9757574 OR sitwatchughtai1@gmail.com.
- Kindly acknowledged after receiving homework on email.

Homework schedule for April	Homework task
Week 1	Write down physical and chemical properties of acids and bases. You must write chemical equations for the reactions /5
Week 2	Q 1 (a)Differentiate between molecular formula and empirical formula. (b) Calculate the empirical formula of magnesium oxide. Mg=0.24g and O=0.16g /5
Week 3	Explain the factors affecting the rate of reactions by giving examples for each factor /10
Week 4	Do Q.1, Q.2 and Q.3 from Chemistry Paper 4 theory (extended) 0620/42 May/June 2016. /5



DHAI EDUCATION SYSTEM

SECTOR F DHA PHASE-II ISLAMABAD PK



SECONDARY / A LEVEL SECTION

HOME WORK SUMMER VACATION
2020

Homework schedule for May	Homework task
Week 1	Do Q.1 and Q.3 from Chemistry Paper 4 theory (extended) 0620/43 May/June 2017. /5
Week 2	Write down the physical and chemical properties of group 1,2,8 and transition elements in points. Write chemical equations with chemical reactions. /10
Week 3	Do Q.1 and Q.2 from Chemistry Paper 4 theory (extended) 0620/42 May/June 2018. /5
Week 4	Do Q.3 and Q.4 from Chemistry Paper 4 theory (extended) 0620/42 May/June 2018. /5