

CHAPTER – 4

An Indian American Woman in Space: Kalpana Chawla

❖ WORKING WITH THE TEXT

Q. 1 A

Where was Kalpana Chawla born? Why is she called an Indian – American? (3)

Answer:

Kalpana Chawla was born in Karnal, Haryana. However, she is called an Indian-American because she acquired U. S. citizenship after she went there to pursue her master's degree and consequently became a naturalized citizen of the U. S.

Q. 1 B

When and why did she go to the U. S.? Who did she marry? (2, 3)

Answer:

She went to the U. S. to pursue a master's degree after completing a Bachelor of Science degree in aeronautical

engineering. She married the flight instructor Jean-Pierre Harrison.

Q. 1 D

What abilities must an astronaut have, according to the journalist? (6)

Answer:

According to the journalist, it takes enormous ability to become an astronaut. One needs to know a lot about everything, from biology to astrophysics to aeronautical engineering. In addition to this, one must also have the encyclopedic knowledge to be an astronaut.

Q. 1 E

Describe Kalpana Chawla's first mission in space. (5)

Answer:

Kalpana Chawla's first mission in the space shuttle, Columbia, was 15 days, 16 hours and 34 minutes long. During this time, she went around the earth with the entire crew 252 times, travelling 10.45 million kilometers. During their mission, the crew performed experiments such as pollinating plants to observe food growth in

space, and tests for making stronger metals and faster computer chips – all for a price tag of about 56 million dollars.

Q. 1 F

What does Kalpana Chawla say about pursuing a dream? Do you agree with her that success is possible? (7)

Answer:

In a message that Kalpana Chawla sent from aboard the space shuttle, Columbia, to the students of her college in Chandigarh, she said that the path from dreams to success does exist. All it requires is a vision to find it and the courage to get onto it. In the end, she concluded by wishing everyone a great journey.

Q. 2

Read the newspaper report to find the following facts about the Columbia's ill-fated voyage.

1. Date and place of lift off:

2. Number of astronauts on board:

3. Number of days it stayed in space:

4. Number of experiments done by scientists:

5. Date of return journey:

6. Height at which it lost contact:

Answer:

1. Date and place of lift-off: Columbia had lifted off on 16 January 2003, from the Kennedy Space Center, Florida

2. Number of astronauts on board: It had a seven-member crew on board

3. Number of days it stayed in space: It stayed in the orbit for 16 days

4. Number of experiments done by scientists: 80 experiments had been done by scientists

5. Date of return journey: Saturday, 1st February 2003

6. Height at which it lost contact: It was flying at an altitude of over 200,000 feet

❖ WORKING WITH LANGUAGE

Q. 1

Match the following

1. unprecedented space tragedy	● something that causes feelings of respect and wonder
2. certified flight instructor	● having knowledge of a wide variety of subjects
3. space mission	● nowadays, in these times
4. super specialization	● a set of jobs to be done in space by a group
5. encyclopedic knowledge	● a person with the correct qualification to teach people to fly planes
6. awe-inspiring	● a sad accident of a kind that has never happened before in space
7. in this age	● great expertise in a limited field or a particular subject

Answer:

1. unprecedented space tragedy	● a sad accident of a kind that has never happened before in space
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4. super specialization	● great expertise in a limited field or a particular subject
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7. in this age	● nowadays, in these times

Q. 2

Use these phrases in sentences of your own, after finding out their meanings:

1. broke apart
2. streaked over
3. spread across
4. lifted off
5. blast off
6. went on
7. cheered along
8. on board
9. carry on

Answer:

1. broke apart – to break violently

The flower went in pieces as it broke apart.

2. streaked over – to pass by in a quick manner

A sudden flash of lightning streaked over the dark sky.

3. spread across – opened out in different directions

It is difficult to meet all my relatives as they are spread across the entire Indian subcontinent.

4. lifted off – the act of flying in a spacecraft, aircraft etc.
- The airplane lifted off with a sudden speed.

5. blast off – the act of taking off from a launching site

The spacecraft blasted off successfully.

6. went on – to go on or continue with

In spite of that horrific incident, she strongly went on with her schedule the next day.

7. cheered along – a loud shout of appreciation

The audience enthusiastically cheered along on her arrival.

8. on board – on or inside a ship, spacecraft, aircraft etc.

The passengers were on board well in time.

9. carry on – to continue with a particular task

The student systematically carried on with her presentation.

Q. 3

Add 'un' – to the words below to make their opposites.

Then look up the meanings of the words you have formed in the dictionary.

1. identified _____

2. controlled _____

3. attended _____

4. successful _____
5. important _____
6. educated _____
7. interesting _____
8. qualified _____
9. trained _____
10. answerable _____

Answer:

1. identified – unidentified
2. controlled – uncontrolled
3. attended – unattended
4. successful – unsuccessful
5. important – unimportant
6. educated – uneducated
7. interesting - uninteresting
8. qualified – unqualified
9. trained - untrained
10. Answerable – unanswerable

Meaning

1. unidentified – not recognized
2. uncontrolled – the loss of power to control a situation or certain things
3. unattended – not noticed or looked after
4. unsuccessful – the situation of failure
5. unimportant – the lack of value for something
6. uneducated – lack of literacy i.e. the basic level of learning to read and write
7. uninteresting – something boring in nature
8. unqualified – not fit for a particular task
9. untrained – not enough experience
10. unanswerable – the inability to be answerable to a particular cause

❖ SPEAKING

Q. 1

In her message to students of her college, Kalpana Chawla said, “May you have the vision to find the path from dreams to success ... Wishing you a great journey.”

Form pairs. Use “May you ...” and “I wish you / Wishing you” to wish your partner good luck and success in

- (i) a sports event,
- (ii) a quiz or a completion, and
- (iii) a test or examination.

Be sure to thank your partner when she/he wishes you in turn. You may also look up a telephone directory, or go to a post office, and get a list in English and Hindi of standard phrases that can be sent in greeting telegrams anywhere in India. Discuss which of these you might use, and when. Compare the English and Hindi phrases for expressing good wishes. Do you know such phrases in any other language?

Answer:

- (i) May you achieve the best heights and be successful in all your games.
- (ii) I wish you good luck in all your endeavors for the upcoming competitions.
- (iii) Wishing you all the very best for your upcoming examinations. Your hard work will definitely take you to greater altitudes always.

NOTE – This is an activity-based question. Students are additionally required to collect appropriate information from the places given and also use their own skills in writing as well as replying to the messages of their partner.

❖ WRITING

Q. 1

Do you have a ‘dream’, or something you very much wish to do? Write a paragraph saying what you want or wish to do. Then say (in another paragraph) how you think you can make your dream come true.

Answer:

Dreams are the driving force towards success in life. They are the powerful tools to drive the inner self towards bringing out the best in one.

Yes, I have an aspiration of clearing the Competitive Examination with a high score. It is not the power and prestige attached with same is what drives my dream but the very idea to bring about a “change” is what I dream about. And as it has been rightly said by Mahatma Gandhi and I quote, “Be the change that you wish to see in the world.”

I think that the only key to success is hard work. Although smart work is the new mantra available, it is hard work and the only hard work that gives instills a sense of determination within oneself. Hard work not only makes you stronger and systematic in approach but it also gives you a wide spectrum of knowledge.

Q. 2

Given below are some words that are spelled differently in British and American English. Fill in the blanks accordingly.

<i>British</i>	<i>American</i>
1. colour	_____
2. _____	labour
3. _____	traveler
4. counselor	_____
5. centre	_____
6. _____	theater
7. _____	organize
8. realise	_____
9. _____	defense
10. offence	_____

Answer:

<i>British</i>	<i>American</i>
1. colour	<u>color</u>
2. <u>labour</u>	labor
3. <u>traveller</u>	traveler
4. counsellor	<u>counselor</u>
5. centre	<u>center</u>
6. <u>theatre</u>	theater
7. <u>organise</u>	organize
8. realise	<u>realize</u>
9. <u>defence</u>	defense
10. offence	<u>offense</u>

❖ BEAUTY – WORKING WITH THE POEM

Q. 1

The poet says, “Beauty is heard in...”

Can you hear beauty? Add a sound that you think is beautiful to the sounds the poet thinks are beautiful.

The poet, Keats, said:

Heard melodies are sweet.

But those unheard are sweeter.

What do you think this means? Have you ever 'heard' a song in your head, long after the song was sung or played?

Answer:

The beauty of nature and its constituents can not only be seen through the human eye but at the same time can also be felt and heard.

The melodious voices of the birds chirping all around are also a part of the sounds that the poet thinks are beautiful.

According to the poet, Keats, the heard melodies are soothing to hear, however, the unheard are much sweeter because of the lasting effect that they have on an individual's mind.

Yes, we often 'hear' a song deep inside our mind even after it has finished because of the long lasting effect of the music and its beats.

Q. 2

Read the first and second stanzas of the poem again. Note the following phrases.

corn growing, people working or dancing, wind sighing.
rain falling, a singer chanting

These could be written as

- corn that is growing
- people who are working and dancing

Can you rewrite the other phrases like this? Why do you think the poet uses the shorter phrases?

Answer:

The other phrases are as follows:

- Wind that is sighing
- Rain that is falling
- A singer who is chanting

The poet uses these short phrases in the poem to divert the attention of the reader

towards the beauty of the nature and its constituents. The use of shorter phrases

also places the natural beauty at the forefront thereby highlighting their

importance and the pleasant effect that they create.

Q. 3

Find pictures of beautiful things you have seen or heard of.

Answer:

The Mother Nature is full of beautiful things. The poem has not only enhanced the beauty of these natural elements present on the Earth but it has also left an important message of enjoying their presence in our day-to-day lives.

Looking around, one can observe the beauty of the flowing water and its sweet noise. The soothing rays of the sun coming indirectly from behind the dark clouds, the colours that the rainbow spreads as it comes after a rain shower and the scenic beauty of the mountains, valleys and the forests are symbols of happiness and joy which not only refresh the mind but also wash away negativity, thereby bring positivity all around.





NOTE – Students can elaborate this answer with the help of more creative ideas through the medium of pictures as shown above.

Q. 4

Write a paragraph about beauty. Use your own ideas along with the ideas in the poem.

(You may discuss your ideas with your partner)

Answer:

The essence of Beauty is a very vivid concept. It is not limited to a particular thing but is a very broad understanding of the qualities that are pleasant and soothing in nature.

As the poem highlights the beauty of the nature which can not only be seen but also heard shows the effect of nature on the human mind. In addition to this, the poem also talks about the beauty present in an individual itself. The

good deeds and thoughts of an individual shape his/her charming appearance.

Beauty is something inherent in every individual in different ways. In order to live a peaceful life, it is important for human beings to appreciate the beautiful ideas in one another. Thus, the poem, in the end, gives a “beautiful and positive message” of appreciating and enjoying the beauty within as well as around oneself.

❖ BEFORE YOU READ

Q. 1

A space shuttle is a spacecraft that is made for repeated space travel (unlike a rocket), for example, between earth and a space station.

Answer:

Do yourself.

Q. 2 A

Use a dictionary to do the tasks below.

Find out the meaning of the following words and phrases (look up the words underlined in the phrases).

(a) Naturalized U. S. citizen

(b) space _____

(c) frontiers of space _____

(d) aboard _____

(e) Lift off (How is it different from 'take off' ?)

(f) crew _____

Answer:

(a) Naturalized U. S. citizen – A Naturalized U. S. citizen is the one who is not a citizen of U. S. (non-citizen) but has acquired citizenship lawfully.

(b) Space – it refers to the physical universe present beyond the earth's atmosphere

(c) Frontiers of space – The word frontier refers to the boundary separating two different areas. Frontiers of space refers to the separating boundary between the earth and the space

(d) Aboard – aboard refers to the action of getting on or into a particular vehicle (a ship, aircraft, train or any other vehicle)

(e) Lift off (How is it different from 'take off'?) – Take off refers to the act of being transported by air (airborne). Lift off refers to the special act of taking off vertically associated with an aircraft, spacecraft or a rocket.

(f) Crew – it refers to a set of people (a group) who work on and operate a ship, spacecraft, aircraft etc.

Q. 2 B

Use a dictionary to do the tasks below.

Notice the spellings of these words in this lesson:

airplane, program. This is how these words are spelt in American English. How are they spelt in British English?

Answer:

The spelling of the word “airplane” in British English is

– Aeroplane

The spelling of the word “program” in British English is

– Programme