

Maharashtra Board Solutions for Class 8- English: Chapter 4.2- Revolutionary Steps in Surgery

BOOK SOLUTIONS
CLASS 8
ENGLISH

CHAPTER 4.2
**Revolutionary Steps in
Surgery**

IndCareer



Maharashtra Board Solutions→

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Class 8: English Chapter 4.2 solutions. Complete Class 8 English Chapter 4.2 Notes.

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Maharashtra Board 8th English Chapter 4.2, Class 8 English Chapter 4.2 solutions

Questions and Answers

Warming Up

1. Discuss in your class:

Question 1.

Do you like to study science?

Answer:

(Points: yes, no, the reasons why)

Question 2.

What are the advantages of learning science?

Answer:

(Points: knowledge, information- more career opportunities, etc.)

Question 3.

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Are robots truly useful to human beings?

Answer:

(Points: yes, no, why – examples of robots you have read of, seen in movies, etc.)

Question 4.

How can we take the help of robots in our daily life?

Answer:

(Points: household chores – boring, monotonous work – heavy manual jobs very intricate, minute jobs – dangerous; jobs – operations, surgeries, etc.)

Question 5.

Name some gadgets and: appliances we use in day-to-day life.

Answer:

(Points: washing machine, mixer, grinder, gas stoves, TV, dishwasher, heaters, etc.)

2. Imagine that one of your family members / friends / classmates has recently undergone a surgery. You were curious and wanted to learn about his/her experience.

Match the questions you asked with their answers.

1.	What health problem did you suffer from?	a.	I was given a bath and I wore a surgical gown.
2.	Whom did you inform about it first?	b.	I was given an injection of anaesthesia.
3.	What type of doctor did you consult?	c.	I consulted an orthopedic surgeon.
4.	How did he / she find out that you needed a surgery?	d.	I was relieved and happy that the operation was over.
5.	What preparation was done before the surgery?	e.	I had fractured my ankle while playing hockey.
6.	What did you feel when you were taken to the operation theatre?	f.	No, I did not feel anything. I was fast asleep.
7.	What was the first step before the actual surgery?	g.	I recovered and I could walk normally after 3 weeks.
8.	Did you feel any pain during the surgery?	h.	Our school hockey coach.
9.	What did you feel when you opened your eyes after the operation?	i.	The doctor took an X-ray of my ankle, and he found a fracture in my ankle.
10.	How soon did you recover?	j.	I was very nervous.

Question 1.

What health problem did you suffer from?

Answer:

I had fractured my ankle while playing hockey.

Question 2.

Whom did you Inform about It first?

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Answer:

Our school hockey coach.

Question 3.

What type of doctor did you consult?

Answer:

I consulted an orthopedic surgeon.

Question 4.

How did he/she find out that you needed surgery?

Answer:

The doctor took an X-ray of my ankle, and he found a fracture in my ankle.

Question 5.

What preparation was done before the surgery?

Answer:

I was given a bath and I wore a surgical gown.

Question 6.

How did you feel when you were taken to the operation theatre?

Answer:

I was very nervous.

Question 7.

What was the first step before the actual surgery?

Answer:

I was given an injection of anesthesia.

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Question 8.

Did you feel any pain during the surgery?

Answer:

No, I did not feel anything. I was fast asleep.

Question 9.

What did you feel when you opened your eyes after the operation?

Answer:

I was relieved and happy that the operation was over.

Question 10.

How soon did you recover?

Answer:

I recovered and I could walk normally after three weeks.

3. We have learned that sentences may have two, three or more sets of subject + predicate, joined by a conjunction. Each set of subject and predicate.

that is a part of a larger sentence is called clause.

Separate the clauses in the following sentences and write the conjunction.

Question 1.

The thief stole the money and he ran away.

Answer:

Clause (i): The thief stole the money.

Clause (ii): he ran away

Conjunction: and

Question 2.

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She told me that she was a doctor.

Answer:

Clause (i): She told me

Clause (ii): that she was a doctor

Conjunction: that

Question 3.

He ran fast but he did not win the race.

Answer:

Clause (i): He ran fast

Clause (ii): he did not win the race

Conjunction: but

Question 4.

The traveller arrived at the station after the train had left.

Answer:

Clause (i): The traveller arrived at the station

Clause (ii): after the train had left

Conjunction: after

4. Coordination

Observe the clauses in the following sentences.

(1) He is intelligent and he is hardworking.

(2) Asit was tired but he could not rest.

(3) You can go for a walk or you can exercise at home.

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(4) Seerna has recovered from fever, so she can attend school.

Each of the above sentences have clauses which do not depend on each other for complete sense. They are called Independent or Co-ordinate clauses. They are joined by conjunctions like and, but, o, so. Such conjunctions are called Co-ordinators.

Other Co-ordinators are:

- as well as / not only but also
- yet / still I however / nevertheless
- or / nor / else / either or / neither nor
- so / therefore / thus / hence / for

From the sentences given in Activity 2 pick out two sentences having Co-ordinate Clauses. Point out the Co-ordinators:

Question 1.

I was given a bath and I wore a surgical gown.

Answer:

Coordinate Clause (i): I was given a bath.

Coordinate Clause (ii): I wore a surgical gown.

Conjunction: and

Question 2.

The doctor took an X-ray of my ankle and he found a fracture in my ankle.

Answer:

Coordinate Clause (i): The doctor took an X-ray of my ankle.

Coordinate Clause (ii): He found a fracture in my ankle.

Conjunction: and

1. Read the lesson and name the following:

Question a.

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First surgeon to perform operations

Answer:

Sushruta

Question b.

Anaesthetics used from mid 19th century

Answer:

Ether and chloroform

Question c.

First successful Cardiac Surgeon

Answer:

Dr. Williams

Question d.

A sack around the heart

Answer:

pericardium

Question e.

Father of modern neurosurgery

Answer:

Harvey Cushing

Question f.

World's most advanced surgical robot

Answer:

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the Da Vinci.

2. Match the terms in 'A' with their explanation in 'B':

Question 1.

'A'	'B'
(1) tooth- extraction	(a) a cut made for surgery
(2) cardiac	(b) having length, breadth and depth
(3) sedative	(c) plastic surgery
(4) tumour	(d) related to the heart
(5) incision	(e) a control unit for a robotic surgery
(6) a console	(f) removing a decayed tooth
(7) 3-D	(g) substance that makes a person sleep
(8) cushioning clip	(h) an extra growth in the body
	(i) a device to stop blood loss in neurosurgery

Answer:

(1) – (f).

(2) – (d).

(3) – (g).

(4) – (h).

(5) – (a).

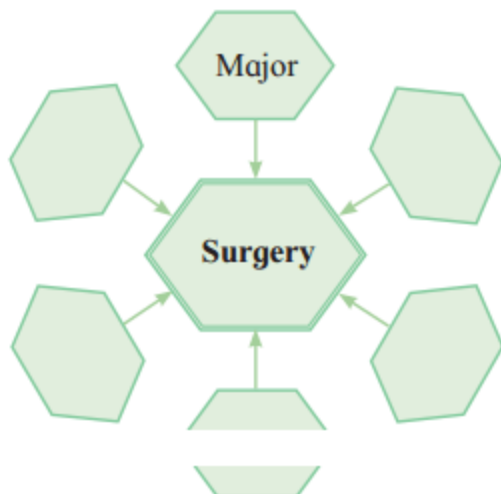
(6) – (e).

(7) – (b).

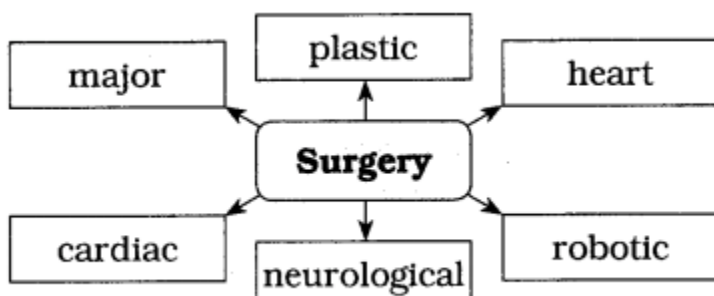
(8) – (i).

3. Fill in the web with words related to 'Surgery':

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Answer:



4. Write 3 to 4 lines about each of the following in your own words:

Question a.

Sushruta Samhita

Answer:

It is thought that Sushruta was probably the first surgeon to perform surgical operations, and the Sushruta Samhita is one of the oldest works in the world that deal with surgery.

Question b.

First Cardiac Surgery

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Answer:

The first cardiac surgery was done by Dr Williams. A patient, James Cornish, was suffering from a very serious knife wound, and the knife had cut an artery less than an inch from his heart. It had punctured the pericardium. Dr Williams and six staff doctors performed a complicated and daring operation and repaired the heart. This became the first successful cardiac surgery.

Question c.**First Neurosurgeon****Answer:**

Harvey Cushing was the first neurosurgeon and is considered to be the father of modern neurological surgery. In the early part of the 20th century, he developed basic techniques and instruments for operating on the brain. Cushing reduced the mortality rate for neurosurgery from 90% to less than 10%. By 1937, when he retired, he had successfully removed more than 2000 tumours. One of his most significant achievements was the development of a method to stem blood loss by inventing a clip called the 'silver clip' or the 'Cushing clip'.

Question d.**The Robotic Surgery****Answer:**

Robotic surgery is a type of minimal invasive surgery. Use is made of miniature surgical instruments, that fit through quarter-inch incisions. Robotic surgery gives the surgeon a 3-D view of the operating site. Every movement he makes with the master controls is replicated accurately by the robot. When necessary, the surgeon can even change the scale of the robot's movements. Surgeons can use this technology to perform complex surgical procedures.

5. A. Fill in the gap in the table of Degrees of Comparison:

(1) old

(2) healthy

(3) near

(4) fine

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(5) ancient

Answer:

(1) old	older	oldest
(2) healthy	healthier	healthiest
(3) near	nearer	nearest
(4) fine	finer	finest
(5) ancient	more ancient	most ancient

5. B. Adjectives which have more than two syllables (long words) take more and most before them to form Comparative and Superlative degrees:

For example : successful – Positive Degree

more successful – Comparative Degree

most successful – Superlative Degree

Give the Comparative and Superlative forms of:

Positive Degree	Comparative Degree	Superlative degree
(1)		Oldest
(2)	Healthier	
(3) Near		
(4)	Finer	
(5)		Earliest

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(6) Small

(7) Faster

(8) High

Answer:

Positive Degree	Comparative Degree	Superlative degree
(1) Old	Older	Oldest
(2) Health	Healthier	Healthiest
(3) Near	Nearer	Nearest
(4) Fine	Finer	Finest
(5) Early	Earlier	Earliest
(6) Small	Smaller	Smallest
(7) Fast	Faster	Fastest
(8) High	Higher	Highest

6. Join the sentences using appropriate Co-ordinators. (but, or, so, and):

Question a.

There was lack of technology. Major surgery could not develop for centuries.

Answer:

There was lack of technology,so Major surgery could not develop for centuries.

Question b.

Cardiac Surgery was tried in the past. Patients did not survive.

Answer:

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Cardiac Surgery was tried in the past but Patients did not survive.

Question c.

He places his fingers into the master controls. He operates all four arms of the Da vinci.

Answer:

He places his fingers into the master controls and He operates all four arms of the Da vinci.

Question d.

Open heart surgery can help to repair heart valves. It can also replace them.

Answer:

Open heart surgery can help to repair heart valves or It can also replace them.

Question e.

Heart patients were treated with sedatives. They did not survive.

Answer:

Heart patients were treated with sedatives but They did not survive.

Question f.

These procedures can be performed through very small incisions. Our patients experience a number of benefits.

Answer:

These procedures can be performed through very small incisions so Our patients experience a number of benefits.

7. Write in your notebook an imaginary telephonic conversation between you and your family – secretary, asking for an appointment to consult the doctor for a health problem you are suffering from. Begin with

Secretary: Good morning! This is XYZ Clinic. How can I help you?

Myself: Good morning! I am

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(Now continue.....)

Additional Important Questions and Answers

Write if the following statements True or False:

Question 1.

General anaesthesia makes the whole body numb.

Answer:

True

Question 2.

Daniel Williams was a young African American surgeon.

Answer:

True

Question 3.

Cardiac surgery was unknown after 1893.

Answer:

False

Question 4.

Cardiac surgery relates to the nerves and brain.

Answer:

False

Give reasons:

Question 1.

Doctors began to use anesthesia:

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Answer:

Doctors could not cut open the part of the body that was not healthy to remove or set right the part, for this would involve a lot of pain to the patient. Hence, doctors began to use general or local anaesthesia, which benumbs the whole body or part of the body. After this, the surgery could be done without pain to the patient.

Question 2.

Cardiac surgery had not developed:

Answer:

Cardiac surgery had not developed because doctors did not have modern medical tools and procedures essential for heart surgery.

Activities based on Contextual Grammar:**Question 1.**

Daniel Williams attempted a new medical technique in order to save a patient's life.

(Pick out the subject and predicate.)

Answer:

subject – Daniel Williams

predicate – attempted a new medical technique in order to save a patient's life

Question 2.

Sushruta was the first surgeon to perform surgical operations.

(Rewrite as a negative sentence.)

Answer:

No other surgeon had performed surgical operations before Sushruta.

Personal Response:**Question 1.**

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How do you feel when you are sick and have to go to a doctor?

Answer:

When I am sick and have to go to a doctor, I usually feel a little frightened that he may give me an injection or ask me to have a blood test. I also feel afraid that he may put me on a strict diet.

Name the following:

Question 1.

First successful Cardiac Surgeon:

Answer:

Dr. Williams

Question 2.

A sack around the heart:

Answer:

pericardium

Question 3.

Father of modern neurosurgery:

Answer:

Harvey Cushing

Question 4.

He was suffering from very serious knife wound:

Answer:

James Cornish

Answer the following:

Question 1.

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Describe what kind of cardiac surgery is done nowadays.

Answer:

Nowadays, more advanced techniques are used to deal with heart complications. Open heart surgery, which helps to repair heart defects and heart valves and even replace them, is also performed successfully.

Question 2.

Explain who neurosurgeons operate upon and on what body parts.

Answer:

Neurosurgeons treat those who have disorders of the nervous system.

They can treat patients of all ages, from the newborn to the elderly, who have suffered a stroke. They operate on the brain, the spine, or the nerves.

Pick out the main clause and the subordinate clause in the following sentences:

Question 1.

Open heart surgery, which can help to repair heart defects, is also performed successfully.

Answer:

main clause: Open heart surgery is also performed successfully

subordinate clause: which can help to repair heart defects

Question 2.

They can treat patients of all ages who have suffered a stroke.

Answer:

main clause: They can treat patients of all ages.

subordinate clause: who have suffered a stroke

Personal Response:

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Question 1.

Name a scientist whom you admire and say why you admire him/her.

Answer:

I admire the scientist Thomas Alva: Edison. He was an American inventor who has been described as America's greatest inventor. He developed many devices that have greatly influenced our lives, including the phonograph, the motion picture camera, and the long-lasting electric light bulb.

Complete the following:

Question 1.

Da Vinci is the word's _____.

Answer:

most advanced surgical robot

Question 2.

The Da Vinci's miniaturized instruments are mounted on _____.

Answer:

three separate robotic arms

Question 3.

The surgeon controls the instruments from a _____.

Answer:

console located in the operating room

List the advantages of robotic surgery.

Answer:

The advantages of robotic surgery:

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- Instead of operating on patients through large incisions, use is made of miniature surgical instruments, that fit through quarter inch incisions.
- Robotic surgery gives the surgeon a 3-D view of the operating site.
- Every movement the surgeon makes with the master controls is replicated accurately by the robot.
- When necessary, the surgeon can even change the scale of the robot's movements.
- Surgeons can use this technology to perform complex surgical procedures.
- Since the incisions made are very small, the patients too benefit.

Activities based on Contextual Grammar:

Question 1.

**Our surgeons are able to perform a growing number of complex surgical procedures.
(Pick out the non-finite verbs and say what they are.)**

Answer:

to perform – Infinitive;

growing – present participle

Question 2.

The surgeon controls these instruments and the camera from a console, located in the operating room.

(Pick out the prepositions.)

Answer:

from

Personal Response:

What are the qualities needed to be a doctor?

Answer:

To be a doctor, one must be very sincere, intelligent, hardworking and dedicated. A doctor must be prepared to work odd hours. He must be strong-minded and ready to face people who are in pain and distress, and who may be facing death. Finally, last but not the least, the main aim of a doctor should be to cure people. Money should be secondary.

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Do as directed:

Question 1.

Complete the word chain of 5 nouns:

surgery → → → →

Answer:

surgery → youth → happiness → strength → health

Question 2.

Pick out the antonyms of the following words from those given in brackets:

simple, increased (successful, complicated, reduced, invasive, separate)

Answer:

simple x complicated

increased x reduced

Question 3.

Arrange the following words in alphabetical order:

dramatically, mortality, disorders, magnified.

Answer:

disorders, dramatically, magnified, mortality.



Maharashtra Board Solutions

Class 8 English

Unit 1

- Chapter 1.1- A Time To Believe
- Chapter 1.2- Dick Whittington and his Cat
- Chapter 1.3- The Pilgrim
- Chapter 1.4- Revathi's Musical Plants

Unit 2

- Chapter 2.1- Vocation
- Chapter 2.2- Nature Created Man and Woman as Equals
- Chapter 2.3- The Worm
- Chapter 2.4- Three Visions for India

- Chapter 2.5- The Happy Prince

Unit 3

- Chapter 3.1- The Plate of Gold
- Chapter 3.2- The Kite Festival
- Chapter 3.3- The Last Leaf
- Chapter 3.4- Leisure

Unit 4

- Chapter 4.1- The Vet
- Chapter 4.2- Revolutionary Steps in Surgery
- Chapter 4.3- The Bees
- Chapter 4.4- Ramanujan
- Chapter 4.5- A Battle to Baffle

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The Maharashtra State Board of Secondary and Higher Secondary Education or MSBSHSE (Marathi: महाराष्ट्र राज्य माध्यमिक आणि उच्च माध्यमिक शिक्षण मंडळ), is an **autonomous and statutory body established in 1965**. The board was amended in the year 1977 under the provisions of the Maharashtra Act No. 41 of 1965.

The Maharashtra State Board of Secondary & Higher Secondary Education (MSBSHSE), Pune is an independent body of the Maharashtra Government. There are more than 1.4 million students that appear in the examination every year. The Maha State Board conducts the board examination twice a year. This board conducts the examination for SSC and HSC.

The Maharashtra government established the Maharashtra State Bureau of Textbook Production and Curriculum Research, also commonly referred to as Ebalbharati, in 1967 to take up the responsibility of providing quality textbooks to students from all classes studying under the Maharashtra State Board. MSBHSE prepares and updates the curriculum to provide holistic development for students. It is designed to tackle the difficulty in understanding the concepts with simple language with simple illustrations. Every year around 10 lakh students are enrolled in schools that are affiliated with the Maharashtra State Board.

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FAQs

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As of now, the MSCERT and Balbharti are responsible for the syllabus and textbooks of Classes 1 to 8, while Classes 9 and 10 are under the Maharashtra State Board of Secondary and Higher Secondary Education (MSBSHSE).

How many state boards are there in Maharashtra?

The Maharashtra State Board of Secondary & Higher Secondary Education, conducts the HSC and SSC Examinations in the state of Maharashtra through its nine Divisional Boards located at Pune, Mumbai, Aurangabad, Nasik, Kolhapur, Amravati, Latur, Nagpur and Ratnagiri.

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