## The Respiratory System

1. For questions 1-15 match the terms on the left with their definitions on the right:

<table>
<thead>
<tr>
<th></th>
<th>a. one of many tiny hair-like processes which line</th>
<th></th>
<th>b. swell or distend with air or gas</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. alveolus</td>
<td></td>
<td>2. bronchiole</td>
<td></td>
</tr>
<tr>
<td>2. bronchiole</td>
<td></td>
<td>3. bronchus</td>
<td></td>
</tr>
<tr>
<td>3. bronchus</td>
<td></td>
<td>4. cilia</td>
<td></td>
</tr>
<tr>
<td>4. cilia</td>
<td></td>
<td>5. deflate</td>
<td></td>
</tr>
<tr>
<td>5. deflate</td>
<td></td>
<td>6. diaphragm</td>
<td></td>
</tr>
<tr>
<td>6. diaphragm</td>
<td></td>
<td>7. inflate</td>
<td></td>
</tr>
<tr>
<td>7. inflate</td>
<td></td>
<td>8. larynx</td>
<td></td>
</tr>
<tr>
<td>8. larynx</td>
<td></td>
<td>9. lung</td>
<td></td>
</tr>
<tr>
<td>9. lung</td>
<td></td>
<td>10. nostril</td>
<td></td>
</tr>
<tr>
<td>10. nostril</td>
<td></td>
<td>11. pharynx</td>
<td></td>
</tr>
<tr>
<td>11. pharynx</td>
<td></td>
<td>12. pleura</td>
<td></td>
</tr>
<tr>
<td>12. pleura</td>
<td></td>
<td>13. thorax</td>
<td></td>
</tr>
<tr>
<td>13. thorax</td>
<td></td>
<td>14. trachea</td>
<td></td>
</tr>
<tr>
<td>14. trachea</td>
<td></td>
<td>15. vocal cords</td>
<td></td>
</tr>
</tbody>
</table>

2. Fill in gaps 16-30 with **ONE** word only:

   Breathing is 16. **......** vital to life that it happens automatically. Each day, 17. **......** breathes about 20,000 times, and by the time they are 70 years old, they will have taken 18. **......** least 600 million breaths. This is all possible due to the respiratory system, which includes the nose, throat, voice box, windpipe, and lungs. At the top of the respiratory system, the nostrils (also called nares) act 19. **......** the air intake, bringing air into the nose, where it is warmed and humidified. Tiny hairs called cilia protect the nasal passageways and other parts 20. **......** the respiratory tract, filtering out dust and other particles that enter the nose 21. **......** the breathed air.

   Air can also be taken in through the mouth. The two openings of the airway, the nasal cavity and the mouth, meet at the pharynx, or throat, at the back of the nose and mouth. Since it carries both food and air the pharynx is 22. **......** of the digestive system as well as the respiratory system. At the bottom, this pathway divides 23. **......** two, one for food (the oesophagus, which leads to the stomach) and the other 24. **......** air. The epiglottis functions as the flap that covers the air-only passage when one swallows, keeping food and liquid 25. **......** going into the lungs.

   The larynx is the uppermost part of the air-only pipe. This short tube contains a 26. **......** of vocal cords, which vibrate to make sounds. The trachea extends downward 27. **......** the base of the larynx. It lies partly in the neck and partly in the chest 28. **......**

   The walls of the trachea are strengthened 29. **......** stiff rings of cartilage to keep it open. The trachea is also lined with cilia, which sweep fluids and foreign particles 30. **......** of the airway so that they stay out of the lungs.

3. For questions 31-40 make a new word from the one in brackets which fits in the gaps:

   At its bottom end, the trachea divides into left and right air tubes called bronchi, which connect to the lungs. Within the lungs, the bronchi branch into smaller bronchi and even smaller tubes called bronchioles. Bronchioles end in tiny air sacs called alveoli, where the 31. **......** (CHANGE) of oxygen and carbon dioxide actually takes place. Each lung consists of about 300-400 million alveoli.

   The lungs also contain elastic tissues that allow them to inflate and deflate without losing shape and are encased by a thin 32. **......** (LINE) called the pleura. This network of alveoli, bronchioles, and bronchi is known as the 33. **......** (BRONCHUS) tree. The chest cavity, or thorax, is the airtight box that houses the bronchial tree, lungs, heart, and other structures. The top and sides of the thorax are formed by the ribs and attached muscles, and the bottom is formed by a large muscle called the diaphragm.
The Respiratory System

The chest walls form a 34. ...... (PROTECT) cage around the lungs and other contents of the chest cavity. Separating the chest from the abdomen, the diaphragm plays a lead role in breathing. It moves 35. ...... (DOWN) when we breathe in, 36. ...... (LARGE) the chest cavity and pulling air in through the nose or mouth. When we breathe out, the diaphragm moves upward, forcing the chest cavity to get smaller and pushing the gases in the lungs up and out of the nose and mouth.

The air we breathe is made up of several gases. Carbon dioxide is the waste gas produced when carbon is combined with oxygen as part of the energy-making processes of the body. The lungs and respiratory system allow oxygen in the air to be taken into the body, while also 37. ...... (ABLE) the body to get rid of carbon dioxide in the air breathed out.

Respiration is the set of events that results in the exchange of oxygen from the environment and carbon dioxide from the body’s cells. The process of taking air into the lungs is 38. ...... (INSPIRE), or inhalation, and the process of breathing it out is expiration, or exhalation. Air is inhaled through the mouth or through the nose. Cilia lining the nose and other parts of the upper respiratory tract move back and forth, pushing foreign matter that comes in with air either toward the nostrils to be expelled or toward the pharynx. The pharynx passes the foreign matter along to the trachea. The pharynx is the pharynx in 53. ...... (ALIMENT), and the larynx in phonation.

The actual exchange of gases occurs in the respiratory portion which consists of the respiratory bronchioles, alveolar ducts and sacs and alveoli. 54. ...... (GRADE) changes in the morphology of the conducting and respiratory portions of the respiratory system occur as the diameter of the respiratory tubes becomes smaller. The epithelium gradually changes from pseudostratified 55. ...... (CILIUM) columnar with goblet cells to an extremely 56. ...... (FLAT) squamous epithelium devoid of goblet cells. The lamina propria also decreases in thickness and elastic fibres become 57. ...... (RELATIVE) more 58. ...... (NUMBER). A layer of smooth muscle becomes a conspicuous 59. ...... (COMPOSE) of the wall of the lower part of the conducting portion of the respiratory tree. It becomes less prominent in the respiratory portion and is absent in the 60. ...... (ALVEOLUS) walls.

The “C” shaped cartilage rings alter shape and appear as plates in the intrapulmonary bronchi. The plates gradually get smaller and finally 61. ...... (APPEAR) when the tube reaches about one millimetre in size. At this point the tube is called a bronchiole. Lack of the cartilage plates makes bronchioles able to constrict to the point of closure in some individuals (62. ...... (ASTHMA)). There are two separate 63. ...... (ARTERY) systems in the lungs: (1) the pulmonary arteries which carry 64. ...... (OXYGEN) blood, follow the respiratory passages and end in capillaries in alveolar walls, and (2) the 65. ...... (BRONCHUS) arteries which carry oxygenated blood, follow the walls of the air tubes to the level of the respiratory bronchioles and nourish these passages and the 66. ...... (COMPANY) pulmonary vessels. The bronchial arteries also supply the pleura.

Most of the venous 67. ...... (DRAIN) from the lung is through the pulmonary veins. These vessels initially run alone in the 68. ...... (CONNECT) tissue septa between lobules and eventually join the pulmonary arteries at the bronchi. These then follow the bronchial tubes to the hilum of the lung. The lungs are richly supplied with
The Respiratory System

69. (LYMPH) vessels, which are organised into two sets - a deep set that accompanies the pulmonary vessels and airways and a superficial set that lies beneath the 70. (VISCERA) and parietal pleura.

6. For questions 71-80 choose the best variant A, B or C:

   The larynx is a(n) 71. made up of cartilage, ligaments, muscles, and mucous 72. , which guards the entrance to the lower respiratory passages (trachea, bronchi, and lungs) and houses the vocal cords. Sound is 73. in the larynx, and that is where pitch and volume are manipulated. The 74. of expiration from the lungs also contributes to loudness, and is necessary for the vocal folds to produce speech. Fine 75. of the larynx is used in a great way to generate a source sound with a particular fundamental frequency, or pitch. This source sound is altered as it travels through the vocal tract, configured differently based on the 76. of the tongue, lips, mouth, and pharynx.

   The process of altering a source sound as it passes through the filter of the vocal tract creates the many different vowel and consonant sounds of the world’s languages. During swallowing, the larynx (at the epiglottis and at the glottis) closes to 77. swallowed material from entering the lungs; the larynx is also pulled upwards to assist this process. Stimulation of the larynx by ingested matter produces a strong cough 78. to propel the lungs. The vocal folds can be held close together (by adducting the arytenoid cartilages), so that they vibrate.

   The muscles attached to the arytenoid cartilages control the degree of opening. Vocal fold length and 79. can be controlled by rocking the thyroid cartilage forward and backward on the cricoid cartilage, and by manipulating the tension of the muscles within the vocal folds. This causes the pitch produced during phonation to 80. or fall.

71. A. machinery   B. apparatus   C. gadget
72. A. membrane    B. casing       C. crust
73. A. shaped      B. created      C. generated
74. A. might       B. strength     C. potency
75. A. strategy    B. manipulation C. planning
76. A. position    B. placement   C. site
77. A. evade       B. avoid       C. prevent
78. A. reflex      B. answer      C. response
79. A. pressure    B. anxiety     C. tension
80. A. raise       B. rise        C. mount

7. For questions 81-100 make a new word from the one in brackets:

   The larynx is 81. (NERVE) by branches of the vagus nerve on each side. Sensory 82. (NERVE) to the glottis and supraglottis is by the external branch of the superior 83. (LARYNX) nerve. The external branch of the superior laryngeal nerve innervates the cricothyroid muscle. Motor innervation to all other muscles of the larynx and sensory innervation to the subglottis is by the 84. (RECUR) laryngeal nerve. Injury to the external laryngeal nerve causes weakened 85. (PHONETICS) because the vocal cords cannot be 86. (TIGHT). Injury to one of the recurrent laryngeal nerves produces 87. (HOARSE), if both are damaged the voice is completely lost and breathing becomes difficult.

   The pharynx consists of three main 88. (DIVIDE). The anterior portion is the nasal pharynx, the back section of the nasal cavity. The nasal pharynx connects to the second region, the oral pharynx, by means of a passage called an isthmus. The oral pharynx begins at the back of the mouth cavity and continues down the throat to the epiglottis. 89. (TRIANGLE)-shaped recesses in the walls of this region house the 90. (PALATE) tonsils, two masses of lymphatic tissue prone to infection. The isthmus connecting the oral and nasal regions is extremely 91. (BENEFIT) in humans. It allows them to breathe through either the nose or the mouth and, when medically necessary, allows food to be passed to the oesophagus by 92. (NOSE) tubes. The third region is the laryngeal pharynx, which begins at the epiglottis and leads down to the oesophagus. Its function is to regulate the passage of air to the lungs and food to the oesophagus. Two small tubes (Eustachian tubes) connect the middle ears to the pharynx and allow air 93. (PRESS) on the eardrum to be equalised. Head colds sometimes inflame these tubes, causing earaches and hearing 94. (DIFFICULT). The muscular walls of the pharynx are comprised of an outer layer made up of three 95. (CIRCLE) disposed muscles, the constrictors. The constrictors are logically named the superior, middle and inferior pharyngeal constrictors.

   The inner muscular layer of the pharynx is made up of three small 96. (LONGITUDE) oriented muscles: the stylopharyngeus, palatopharyngeus, and salpingopharyngeus. The stylopharyngeus takes origin from outside of the pharynx, from the 97. (STYLE) process, and gains access to the interior of the pharynx by passing between the superior and middle constrictors. The palatopharyngeus takes origin, as the name suggests, from the soft palate, and runs down the length of the pharynx, intermingling with fibres of the stylopharyngeus below the inferior border of the superior constrictor. The salpingopharyngeus is usually considered as a slip of palatopharyngeus which has a separate origin from the posterior part of the cartilage at the opening of the auditory tube. During swallowing, 98. (SUCCEED) contraction of the superior, middle, and inferior constrictor muscles helps to propel the bolus of food down into the oesophagus. In 99. (ADD), contraction of the three 100. (LONGITUDE) muscles of the pharynx helps to raise the pharynx,
A bronchus is a(n) 101. ...... in the respiratory tract that branches from the trachea and conducts air to and from the lungs. The bronchus is part of a coordinated 102. ...... designed to place air in the position where there can be rapid 103. ...... of oxygen and carbon dioxide with the circulatory system. No gas 104. ...... takes place in this part of the respiratory system; however, the bronchi connect with progressively smaller passages until exchange can take place. The right main bronchus of humans is wider, shorter, and more vertical than the left main bronchus. It is about 2.5 centimetres long, and enters the right 105. ...... nearly opposite the fifth thoracic 106. ...... . The left main bronchus, while smaller in 107. ...... , is longer than the right, being nearly 5 centimetres long. It enters the 108. ...... of the left lung opposite the sixth thoracic vertebra. The bronchi branch into smaller and smaller passageways until they terminate in tiny air sacs called 109. ...... , which are the basic anatomical units of gas exchange in the lung. The azygos 110. ...... arches over the right main bronchus from behind; and the right pulmonary 111. ...... lies at first below and then in front of it. About 2 centimetres from its 112. ...... , the right main bronchus gives off a branch to the upper lobe of the right lung. This is termed the parietal branch of the bronchus, because it arises above the right pulmonary artery. The right bronchus passes below the artery, and is known as the hyparterial branch; it divides into two branches for the middle and lower 113. ...... .

The left main bronchus passes beneath the aortic 114. ...... , crosses in front of the aoesophagus, the thoracic duct, and the descending aorta, and has the left pulmonary artery lying at first above, and then in front of it. The left bronchus has no eparterial 115. ...... , and therefore, it has been supposed that there is no upper lobe to the left lung, but that the so-called upper lobe corresponds to the middle lobe of the right lung. The right main bronchus subdivides into three segmental bronchi while the left main bronchus divides into two. The lobar bronchi divide into tertiary bronchi. Each of the segmental bronchi supplies a bronchopulmonary segment. A bronchopulmonary segment is a 116. ...... of a lung that is separated from the rest of the lung by a connective tissue 117. ...... . This property allows a bronchopulmonary segment to be surgically removed without affecting other segments. There are ten segments per lung, but due to anatomic 118. ...... , several segmental bronchi in the left lung fuse, giving rise to eight. The segmental bronchi divide into many primary bronchioles, which divide into terminal bronchioles, each of which then gives rise to several respiratory bronchioles, which go on to divide into 2 to 11 alveolar 119. ...... . There are 5 or 6 alveolar sacs associated with each alveolar duct. There is hyaline cartilage present in the bronchi, present as irregular 120. ...... in the larger bronchi (and not as regular as in the trachea), and as small plates and islands in the smaller bronchi. Smooth muscle is present continuously around the bronchi.

The gaps 121-130 make a new word from the one given in brackets:

The trachea is the 121. ...... (BONE) tube that connects the nose and mouth to the lungs, and is an important part of the 122. ...... (VERTEBRA) respiratory system. When an individual breathes in, air flows into the lungs for respiration through the windpipe. Because of its primary function, any damage incurred to the trachea is 123. ...... (POTENTIAL) life-threatening. The bony 124. ...... (SKELETON) trachea is comprised of cartilage and ligaments, and is located at the front of the neck. The trachea begins at the lower part of the larynx and continues to the lungs, where it branches into the right and left bronchi. It measures 10-12 cm in length, and 16-18 mm in diameter. The trachea is composed of 16 to 20 “C” shaped rings of cartilage connected by ligaments, with a ciliated-lined mucus membrane. It is this structure that helps push objects out of the airway should something become lodged. Because it is connected to the same tubing system that allows an individual to swallow, the respiratory system has evolved a mechanism to prevent choking and respiratory 125. ...... (FAIL).

When an object blocks the trachea, choking occurs. The 126. ...... (COUGH) reflex allows the ciliated cells to push the object out of the trachea and out of the respiratory system. As the primary air canal in the vertebrate system, any damage incurred by the trachea could impair respiration. In the event of damage to the trachea, it may be necessary to undergo a procedure known as 127. ...... (TUBE). In this 128. ...... (PROCEED), doctors place a tube in the nose or mouth and down to the trachea to get air to the lungs. The presence of fractures or inflammation in the trachea may require that a physician perform a tracheotomy to clear the airway. A tracheotomy, which is performed under general anaesthesia, involves making a surgical 129. ...... (INCISE) in the throat area that creates a hole in the trachea through which a tube is inserted to provide 130. ...... (VENTILATE).
Inflammation of the trachea can lead to other conditions, as tracheitis, tracheobronchitis, and tracheomalacia. Infections of the trachea may result in what is referred to as tracheomalgy. A collapsed trachea, resulting from defects in the cartilage which makes the cartilage unable to support the trachea, results in a dry hacking cough. To detect and treat abnormalities associated with the trachea, computer tomography scans, or CT scans, may be used. The respiratory system is susceptible to a wide range of disorders caused by pollutants. When the windpipe is infected by pathogens, bacteria, or chemical or physical irritants, and allergic antigens aspiration can also occur. A vascular ring around the trachea does not allow normal development in that area of the trachea, and tracheomalacia is observed in the area of impingement. The cases of tracheomalacia occur with increasing frequency both in children and in adults, and the tracheomalacia is not often recognised clearly. It most commonly affects the distal third of the trachea.

By virtue of its intrinsic compliance, the trachea changes calibre during the respiratory cycle. Tracheal dilatation and lengthening occurs during inspiration; narrowing and shortening occurs during expiration. Accentuation of this cyclic 157. may cause excessive narrowing of tracheal lumen, thus deforming the entire length or a localised segment. However, it is rarely found in 158. with laryngomalacia because of the separate developmental pathways for the trachea and the larynx.

In general, abnormal collapsibility denotes a loss of structural rigidity, such as softening, better expressed as abnormally increased compliance. Any disease process affecting the integrity of the tracheal wall is apt to cause a change in tracheal compliance. The anatomic defect may be 159. or even may escape detection. The functional interference with ventilation may cause expiratory flow 160. and interfere with clearance of secretions.
The Respiratory System

12. For gaps 161-170 choose the best option:

161. ...... of millions of people in the world suffer from asthma. Asthma is a chronic 162. ...... lung disease that causes airways to tighten and narrow. Often triggered by irritants in the air such as cigarette smoke, asthma flares involve 163. ...... of the muscles and swelling of the lining of the tiny airways. The resulting narrowing of the airways 164. ...... air from flowing properly, causing wheezing and difficulty breathing, sometimes to the point of being life-threatening. Management of asthma starts with an asthma management plan, which usually 165. ...... avoiding asthma triggers and sometimes taking medications. Not to be confused with bronchitis, bronchiolitis is an inflammation of the bronchioles, the smallest branches of the bronchial tree. Bronchiolitis 166. ...... mostly infants and young children, and can cause wheezing and serious difficulty breathing. It is usually 167. ...... by specific viruses in wintertime, including respiratory syncytial virus (RSV).

Chronic obstructive pulmonary disease (COPD) is a term that describes two lung diseases — emphysema and chronic bronchitis. Long-term smoking often causes emphysema, and although it seldom affects children and teens, it can have its roots in the teen and childhood years. In emphysema, the lungs 168. ...... an excessive amount of mucus and the alveoli become damaged. It becomes difficult to breathe and get enough oxygen into the blood. In bronchitis, a common disease of adults and teens, the membranes 169. ...... the larger bronchial tubes become inflamed and an 170. ...... amount of mucus is produced. The person develops a bad cough to get rid of the mucus. Cigarette smoking is a major cause of chronic bronchitis in teens.

161. A. Many | B. Dozens | C. Numerous
162. A. inflame | B. inflammation | C. inflammatory
163. A. tightening | B. reduction | C. contraction
164. A. prevents | B. forbids | C. bans
165. A. focuses | B. involves | C. regards
166. A. affects | B. influences | C. involves
167. A. based | B. rooted | C. caused
168. A. fabricate | B. produce | C. manufacture
169. A. lining | B. coating | C. shielding
170. A. excessive | B. extra | C. extreme

13. For gaps 171-175, choose a suitable ending A-H. There are three endings that are not needed:

Like any cancer, cancer of the lung results from an abnormality in the body’s basic unit of life, namely, the cell. Normally, the body maintains a system of balances on cell growth so that cells divide 171. ...... . Disruption of this system of balances on cell growth results in an uncontrolled division and proliferation of cells that eventually forms a mass known as a tumour. Tumours can be benign or malignant. Benign tumours usually can be removed and do not spread to other parts of the body. Malignant tumours, on the other hand, grow aggressively and invade other tissues of the body, allowing entry of tumour cells into the bloodstream or lymphatic system and then to other sites in the body. Since lung cancer tends 172. ...... . While lung cancer can spread to any organ in the body, certain organs, particularly the adrenal glands, liver, brain, and bone, are the most common sites for lung cancer metastasis.

The principal function of the lungs is to exchange gases between the air we breathe and the blood. Through the lungs, carbon dioxide is removed from the bloodstream and oxygen from inspired air enters the bloodstream. Lung cancers can arise in any part of the lung, but most cancers of the lung are thought 173. ...... . Hence, lung cancers are sometimes called bronchogenic cancers or bronchogenic carcinomas. Cancers can also arise from the pleura (called mesotheliomas) or rarely from supporting tissues within the lungs, such as the blood vessels.

Lung cancer is the most common cause of death due 174. ...... . It is considered to be predominantly a disease of the elderly. Lung cancer was not common prior to the 1930s but it increased dramatically along with the increase in tobacco smoking. The incidence of lung cancer is strongly related 175. ...... . The risk of lung cancer increases with the number of cigarettes smoked and the time over which smoking has occurred. Pipe and cigar smoking can also cause lung cancer, although the risk is not as high as with cigarette smoking. Thus, while someone who smokes one pack of cigarettes per day has a risk for the development of lung cancer that is 25 times higher than a non-smoker, whereas pipe and cigar smokers have a risk of lung cancer that is about five times that of a non-smoker.

A. to arise from the epithelial cells, the cells that line the larger and smaller airways (bronchi and bronchioles)
B. to cancer in both men and women throughout the world
C. to cigarette smoking, with about 90% of lung cancers arising as a result of tobacco use
D. to early diagnosis of the condition
E. to enhancement of the effects of the primary therapy
F. to metastasise very early after it develops, it is a life-threatening cancer and one of the most difficult types to treat
G. to occur in both smokers and non-smokers who have had lung cancer
H. to produce new cells only when new cells are needed
Lung cancers, also called bronchogenic carcinomas, are divided into two groups: small cell lung cancers (SCLC) and non-small cell lung cancers (NSCLC). This 186. ..... is based upon the microscopic appearance of the tumour cells. These two types of cancers grow and spread in different ways and may have different treatment 187. ..... , so a 188. ..... between these two types is important. Small cell lung cancers 189. ..... about 20% of lung cancers and are the most aggressive and rapidly growing of all lung cancers. They are strongly related to cigarette smoking, with only 1% of these 190. ..... occurring in non-smokers. SCLC metastasise rapidly to many 191. ..... within the body and are most often discovered after they have spread extensively. Referring to a specific cell 192. ..... often seen when examining samples of SCLC under the 193. ..... , these cancers are sometimes 194. ..... oat cell carcinomas.

Non-small cell lung cancers are the most common lung cancers, 195. ..... for about 80% of all lung cancers. They can be divided into three main 196. ..... that are named based upon the type of cells found in the tumour. Adenocarcinomas comprise up to 50% of NSCLC. While they are associated with smoking, they can be developed by non-smokers. Most adenocarcinomas 197. ..... in the outer, or peripheral, areas of the lungs. Squamous cell carcinomas 198. ..... for about 30% of NSCLC. They arise most frequently in the central chest 199. ..... in the bronchi. Large cell carcinomas, on the other 200. ..... , are the least common type of NSCLC.

Glossary

adduct - to draw (as a limb) toward or past the median axis of the body; also: to bring together
airtight - impermeable to air or nearly so
arytenoid - relating to or being either of two small laryngeal cartilages to which the vocal cords are attached; relating to or being either of a pair of small muscles or an unpaired muscle of the larynx
conspicuous - obvious to the eye or mind
cricoid - of, relating to, or being a cartilage of the larynx with which arytenoid cartilages articulate
flap - something that is broad or flat and usually thin and that hangs loose or projects freely
foregut - the anterior part of the alimentary canal of a vertebrate embryo that develops into the pharynx, oesophagus, stomach, and extreme anterior part of the intestine
pseudostratified - of, relating to, or being an epithelium consisting of closely packed cells which appear to be arranged in layers but all of which are in fact attached to the basement membrane

The Respiratory System

14. For questions 176-185 make a new word from the one in brackets which fits in the gaps:

Tobacco smoke contains over four thousand 176. ..... (CHEMISTRY) compounds, many of which have been shown to be 177. ..... (CARCINOMA). The risk of developing lung cancer decreases each year following smoking 178. ..... (CEASE) as normal cells grow and replace damaged cells in the lung. In former smokers, the risk of developing lung cancer begins to approach that of a non-smoker about 15 years after cessation of smoking. Passive smoking, the 179. ..... (INHALE) of tobacco smoke by non-smokers who share living or working areas with smokers, is also an established risk factor for the development of lung cancer. Apart from smoking, there are other factors that can lead to lung cancer. One is 180. ..... (EXPOSE) to asbestos. The workplace may be a common source of exposure to asbestos fibres, as asbestos was widely used in the past as both thermal and acoustic 181. ..... (INSULATE).

Both lung cancer and mesothelioma are associated with exposure to asbestos. On the other hand, cigarette smoking drastically increases the chance of developing an asbestos-related lung cancer in people exposed to asbestos. Lung cancer is not only caused by smoking or exposure to gases. There are also smokers who do not develop lung cancer and non-smokers who have the disease. This means that individual 182. ..... (GENE) weakness may play a role in the 183. ..... (CAUSE) of lung cancer. Numerous studies have shown that lung cancer is more likely to occur in both smoking and non-smoking relatives of people who have had lung cancer than in the general population. Recently, a large genetic study of lung cancer identified a small region in the genome (DNA) that contains genes which appear to confer an increased 184. ..... (SUSCEPTIBLE) to lung cancer in smokers. Most adenocarcinomas 197. ..... in the outer, or peripheral, areas of the lungs. Squamous cell carcinomas 198. ..... for about 30% of NSCLC. They arise most frequently in the central chest 199. ..... in the bronchi. Large cell carcinomas, on the other 200. ..... , are the least common type of NSCLC.

15. For gaps 186-200 choose from the words in the box. There are five extra words that you do not need to use:

<table>
<thead>
<tr>
<th>account</th>
<th>arise</th>
<th>comprise</th>
<th>options</th>
<th>sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>accounting</td>
<td>called</td>
<td>distinction</td>
<td>perform</td>
<td>therapy</td>
</tr>
<tr>
<td>appearance</td>
<td>carcinoma</td>
<td>hand</td>
<td>referred</td>
<td>tumours</td>
</tr>
<tr>
<td>area</td>
<td>classification</td>
<td>microscope</td>
<td>samples</td>
<td>types</td>
</tr>
</tbody>
</table>
The Respiratory System

sputum - matter expectorated from the respiratory system and especially the lungs and bronchi in diseased states that is composed chiefly of mucus but may contain pus, blood, fibrin, or microorganisms

styloid process - any of several long slender pointed bony processes: as a) a sharp spine that projects downward and forward from the inferior surface of the temporal bone just in front of the stylomastoid foramen and that is derived from cartilage of the second visceral arch; b) an eminence on the distal extremity of the ulna projecting from the medial and posterior part of the bone and giving attachment to a ligament of the wrist joint; c) a conical prolongation of the lateral surface of the distal extremity of the radius that gives attachment to several tendons and ligaments

viscus (pl. viscera) - an internal organ of the body (as the heart, liver, or intestine) located in the large cavity of the trunk