Answer four (04) questions including one question from part - 01

No. of questions: 07  
Time: Three hours

1. "Although the translator of Legal and Science is faced with numerous problems, most of these problems could be solved by using the glossary of standard Legal or Science terms." Explain this statement using examples.

2. "There is a direct impact of the utilization of English medium in the tertiary education on science and Legal translation in Sri Lanka." Discuss the problems faced by the Science and Legal translator in Sri Lanka with reference to the above statement.
03. Explain with examples how the knowledge of factors like the grammatical similarities and difference between source language and the target language, ambiguity, connotative meanings influence in technical translations like Science and Legal and in non-technical translation like Literary translation.

11 ඇපජම - PART II

04. Translation into Sinhala

Defamation law in the United States is much less plaintiff-friendly than its counterparts in European and the Commonwealth countries, due to the enforcement of the First Amendment. One very important distinction today is that European and Commonwealth jurisdictions adhere to a theory that every publication of a defamation gives rise to a separate claim, so that a defamation on the Internet could be sued on in any country in which it was read, while American law only allows one claim for the primary publication.

In the United States, a comprehensive discussion of what is and is not libel or slander is difficult, because the definition differs between different states. Some states codify what constitutes slander and libel together into the same set of laws. Some states have criminal libel laws on the books, though these are old laws which are very infrequently prosecuted. Washington State has held its criminal libel statute unconstitutional applying the state and federal constitutions to the question.61

Most defendants in defamation lawsuits are newspapers or publishers, which are involved in about twice as many lawsuits as are television stations. Most plaintiffs are corporations, businesspeople, entertainers and other public figures, and people involved in criminal cases, usually defendants or convicts but sometimes victims as well. In no state can a defamation claim be successfully maintained if the allegedly defamed person is deceased.

Section 230 of the Communications Decency Act of 1996 generally immunizes from liability parties that create forums on the Internet in which defamation occurs from liability for statements published by third parties. This has the effect of precluding all liability for statements made by persons on the Internet whose identity cannot be determined.

In the various states, whether by case law or legislation, there are generally several "privileges" that can get a defamation case dismissed without proceeding to trial. These include the litigation privilege, which makes statements made in the context of litigation non-actionable, and the allegedly defamatory statement being "fair comment and criticism", as it is important to society that everyone be able to comment on matters of public interest. The United States Supreme Court, however, has declined to hold that the "fair comment" privilege is a Constitutional imperative. (citation needed)

One defense is reporting or passing through information as a general information or warning of dangerous or emergent conditions, and intent to defame must be proven. Also, the truth of the allegedly defamatory statement will always negate the claim (whether because the plaintiff fails to meet his/her burden of proving falsity or because the defendant proves the statement to be true).61
Right to equality.

12. (1) All persons are equal before the law and are entitled to the equal protection of the law.
(2) No citizen shall be discriminated against on the grounds of race, religion, language, caste, sex, political opinion, place of birth or any such grounds:
Provided that it shall be lawful to require a person to acquire within a reasonable time sufficient knowledge of any language as a qualification for any employment or office in the Public, Judicial or Local Government Service or in the service of any public corporation, where such knowledge is reasonably necessary for the discharge of the duties of such employment or office:
Provided further that it shall be lawful to require a person to have sufficient knowledge of any language as a qualification for any such employment or office where no function of that employment or office can be discharged otherwise than with a knowledge of that language.
(3) No person shall, on the grounds of race, religion, language, caste, sex or any one such grounds, be subject to any disability, liability, restriction or condition with regard to access to shops, public restaurants, hotels, places of public entertainment and places of public worship of his own religion.
(4) Nothing in this Article shall prevent special provision being made, by law, subordinate legislation or executive action, for the advancement of women, children or disabled persons.

Freedom from arbitrary arrest, detention and punishment, and prohibition of retroactive penal legislation.

13. (1) No person shall be arrested except according to procedure established by law. Any person arrested shall be informed of the reason for his arrest.
(2) Every person held in custody, detained or otherwise deprived of personal liberty shall be brought before the judge of the nearest competent court according to procedure established by law, and shall not be further held in custody, detained or deprived of personal liberty except upon and in terms of the order of such judge made in accordance with procedure established by law.
(3) Any person charged with an offence shall be entitled to be heard, in person or by an attorney-at-law, at a fair trial by a competent court.
(4) No person shall be punished with death or imprisonment except by order of a competent court, made in accordance with procedure established by law. The arrest, holding in custody, detention or other deprivation of personal liberty of a person, pending investigation or trial, shall not constitute punishment.
(5) Every person shall be presumed innocent until he is proved guilty:
Provided that the burden of proving particular facts may, by law, be placed on an accused person.
(6) No person shall be held guilty of an offence on account of any act or omission which did not, at the time of such act or omission, constitute such an offence, and no penalty shall be imposed for any offence more severe than the penalty in force at the time such offence was committed.
Nothing in this Article shall prejudice the trial and punishment of any person for any act or omission which, at the time when it was committed, was criminal according to the general principles of law recognized by the community of nations.
The general structure of the circulatory system of the rat is almost identical to that of humans. Pulmonary circulation carries blood through the lungs for oxygenation and then back to the heart. Systemic circulation moves blood through the body after it has left the heart. You will begin your dissection at the heart. It is important that you do not cut the vessels as you carefully remove any muscles and surrounding tissue to expose them.

You may not be able to locate all these structures due to the placement of the heart and vessels, but you should be able to find a some of them on the rat and label the diagram to the right. The image shows a human heart, but a rat’s heart has the same structures.

**Trace the Flow of Blood Inside the Heart**

1. Blood from the posterior portion of the body enters the right atrium of the heart through the inferior vena cava and the superior vena cava. Label these on the diagram.

2. Blood flows from the right atrium to the right ventricle via the tricuspid valve. Label each on the diagram.

3. Blood is then pumped through the pulmonary semilunar valve and into the pulmonary trunk where blood travels to the lungs. Label each.

4. Blood then flows through the pulmonary arteries to the lungs where it is oxygenated and then returns from the lungs to enter the left atrium via four pulmonary veins. Only one of these is visible on the diagram, a tiny vessel on the right side.

5. Blood goes from the left atrium to the left ventricle via the bicupid (or mitral) valve. Label each.

Blood leaves the left ventricle of the heart through the aortic semilunar valve and enters the aorta. The aorta has a visible arch with vessels that lead to the head before the artery descends into the rat’s thoracic cavity. Find the aorta on the rat and label the aorta on the diagram.

The aorta has four general areas. Locate each of these on your rat.  

- **ascending aorta** - the upper part of the vessel that starts at the atrium
- **aortic arch** - the place where the aorta bends to the left.
- **descending aorta** - after the bend, the aorta can be traced toward the diaphragm
- **abdominal aorta** - the aorta passes through the diaphragm and supplies blood to the lower extremities

1. **Coronary arteries** are located on top of the heart and supply the heart itself with blood.

2. The first visible branch from the aorta is the **brachiocephalic artery**, it divides into the **right common carotid artery**, which supplies the right side of the neck, and the right subclavian artery, which supplies the right shoulder and arms. Locate the carotid arteries on your rat, they will be obvious arteries that travel up the side of the next.

3. At the most anterior part of the bend in the aortic arch is the **left common carotid artery**, which supplies blood up the left side of the neck. If you are careful you can follow the common carotid to where it branches into the internal and external carotid.

4. Immediately to the left of the left common carotid artery is the **left subclavian artery**, which supplies blood to the left shoulder and arm. The subclavian artery becomes the axillary artery as it enters the forearm.
Geothermal energy is thermal energy generated and stored in the Earth. Thermal energy is the energy that determines the temperature of matter. The geothermal energy of the Earth’s crust originates from the original formation of the planet (20%) and from radioactive decay of minerals (80%). The geothermal gradient, which is the difference in temperature between the core of the planet and its surface, drives a continuous conduction of thermal energy in the form of heat from the core to the surface. The adjective geothermal originates from the Greek roots γῆ (ge), meaning earth, and θέρμος (thermos), meaning hot.

Earth’s internal heat is thermal energy generated from radioactive decay and continual heat loss from Earth’s formation. Temperatures at the core-mantle boundary may reach over 4000 °C (7,200 °F). The high temperature and pressure in Earth’s interior cause some rock to melt and solid mantle to behave plastically, resulting in portions of mantle convection upward since it is lighter than the surrounding rock. Rock and water is heated in the crust, sometimes up to 370 °C (700 °F).

From hot springs, geothermal energy has been used for bathing since Paleolithic times and for space heating since ancient Roman times, but it is now better known for electricity generation. Worldwide, 11,400 megawatts (MW) of geothermal power is online in 24 countries in 2012. An additional 28 gigawatts of direct geothermal heating capacity is installed for district heating, space heating, spas, industrial processes, desalination and agricultural applications in 2010.

Geothermal power is cost effective, reliable, sustainable, and environmentally friendly, but has historically been limited to areas near tectonic plate boundaries. Recent technological advances have dramatically expanded the range and size of viable resources, especially for applications such as home heating, opening a potential for widespread exploitation. Geothermal wells release greenhouse gases trapped deep within the earth, but these emissions are much lower per energy unit than those of fossil fuels. As a result, geothermal power has the potential to help mitigate global warming if widely deployed in place of fossil fuels.

The Earth’s geothermal resources are theoretically more than adequate to supply humanity’s energy needs, but only a very small fraction may be profitably exploited. Drilling and exploration for deep resources is very expensive. Forecasts for the future of geothermal power depend on assumptions about technology, energy prices, subsidies, and interest rates. Pilot programs like EWEB’s customer opt in Green Power Program show that customers would be willing to pay a little more for a renewable energy source like geothermal. But as a result of government assisted research and industry experience, the cost of generating geothermal power has decreased by 25% over the past two decades. In 2001, geothermal energy cost between two and ten US cents per kWh.