



කැලණිය විශ්වවිද්‍යාලය - ශ්‍රී ලංකාව
University of Kelaniya - Sri Lanka

දුරස්ථ සහ අධ්‍යාපන අධ්‍යයන කේන්ද්‍රය
Centre for Distance and Continuing Education

ශාස්ත්‍රවේදී (සාමාන්‍ය) උපාධි තෘතීය පරීක්ෂණය (බාහිර) - 2010
2012 අප්‍රේල්/මැයි/ජූනි

Bachelor of Arts (General) Degree Third Examination (External) - 2010
April/ May/ June 2012

මානවශාස්ත්‍ර පීඨය
Faculty of Humanities

භාෂා පරිවර්තන ක්‍රම - TRMD -E 3015
Translation Methods - TRMD - E3015

විද්‍යා සහ නීති පරිවර්තනය - Science and Legal Translation

පළමු කොටසින් එක් ප්‍රශ්නයක්වත් ඇතුළත්වන පරිදි
ප්‍රශ්න හතරකට (04) පිළිතුරු සපයන්න

Answer four (04) questions selecting at least one from part I.

ප්‍රශ්න සංඛ්‍යාව : 07 යි
No. of questions : 07

කාලය : පැය 03 යි
Time : Three hours

1 කොටස - PART I

01. විද්‍යාත්මක සහ තාක්ෂණික දැනුම, භාෂා ශක්‍යතාව, ඉලක්ක භාෂාවේ සහ මුල් භාෂාවේ ව්‍යුහාත්මක වෙනස්කම් ද සමානකම් ද පිළිබඳ දැනුම විද්‍යා පරිවර්තනයේ දී වැදගත් වන ආකාරය නිදසුන් සහිතව විස්තර කරන්න.

Describe with examples how scientific and technical knowledge, language competency and the structural differences and similarities between the source and the target language become important in science and legal translation.

02. අර්ථ සංදිග්ධතාව, ව්‍යංග්‍යාර්ථ, භාෂා ද්විරූපතාව පුද්ගල භාෂා, උපභාෂා වැනි කරුණු විද්‍යා සහ නීති පරිවර්තනයේ දී ඉතා ප්‍රවේශමෙන් භාවිත කළ යුතු ආකාරය නිදසුන් සහිතව පැහැදිලි කරන්න.

Explain with examples how the factors like ambiguity, connotative meanings, diglossic feature of a language idiolects, dialects etc should be utilized in a careful manner in science and legal translation.

03. විද්‍යා-නීති පරිවර්තකයෙකු සහ සාහිත්‍ය හා ආගමික කෘති පරිවර්තකයෙකු තම පරිවර්තන කාර්යයේ දී මුහුණ දෙන ගැටළු සංසන්දනාත්මකව සාකච්ඡා කරන්න.

Discuss comparing the problems faced by a scientific and legal translator and a literal and religious translator.

04. සිංහලට පරිවර්තනය කරන්න.

Translate into Sinhala

Movement of proteins

Each type of protein is usually sent to a particular part of the cell. An important part of cell biology is the investigation of molecular mechanisms by which proteins are moved to different places inside cells or secreted from cells.

Most proteins are synthesized by ribosomes in the rough endoplasmic reticulum. Ribosomes contain the nucleic acid rRNA, which assembles and joins amino acids to make proteins. They can be found alone or in groups within the cytoplasm as well as on the RER. This process is known as protein biosynthesis. Biosynthesis (also called biogenesis) is an enzyme-catalyzed process in cells of living organisms by which substrates are converted to more complex products (also simply known as protein translation). Some proteins, such as those to be incorporated in membranes (known as membrane proteins), are transported into the "rough" endoplasmic reticulum (ER) during synthesis. This process can be followed by transportation and processing in the Golgi apparatus. The Golgi apparatus is a large organelle that processes proteins and prepares them for use both inside and outside the cell. The Golgi apparatus is somewhat like a post office. It receives items (proteins from the ER), packages and labels them, and then sends them on to their destinations (to different parts of the cell or to the cell membrane for transport out of the cell). From the Golgi, membrane proteins can move to the plasma membrane, to other sub-cellular compartments, or they can be secreted from the cell. The ER and Golgi can be thought of as the "membrane protein synthesis compartment" and the "membrane protein processing compartment", respectively. There is a semi constant flux of proteins through these compartments. ER and Golgi-resident proteins associate with other proteins but remain in their respective compartments. Other proteins "flow" through the ER and Golgi to the plasma membrane. Motor proteins transport membrane protein-containing vesicles along cyto-skeletal tracks to distant parts of cells such as axon terminals.

Some proteins that are made in the cytoplasm contain structural features that target them for transport into mitochondria or the nucleus. Some mitochondrial proteins are made inside mitochondria and are coded for by mitochondrial DNA. In plants, chloroplasts also make some cell proteins.

Extracellular and cell surface proteins destined to be degraded can move back into intracellular compartments upon being incorporated into endocytosed vesicles some of which fuse with lysosomes where the proteins are broken down to their individual amino acids. The degradation of some membrane proteins begins while still at the cell surface when they are separated by secretases. Proteins that function in the cytoplasm are often degraded by proteasomes.

Electron

The **electron** is a subatomic particle with a negative elementary electric charge. It has no known components or substructure; in other words, it is generally thought to be an elementary particle. An electron has a mass that is approximately 1/1836 that of the proton. The intrinsic angular momentum (spin) of the electron is a half-integer value in units of \hbar , which means that it is a fermion. The antiparticle of the electron is called the positron; it is identical to the electron except that it carries electrical and other charges of the opposite sign. When an electron collides with a positron, both particles may either scatter off each other or be totally annihilated, producing a pair (or more) of gamma ray photons. Electrons, which belong to the first generation of the lepton particle family, participate in gravitational, electromagnetic and weak interactions. Electrons, like all matter, have quantum mechanical properties of both particles and waves, so they can collide with other particles and can be diffracted like light. However, this duality is best demonstrated in experiments with electrons, due to their tiny mass. Since an electron is a fermion, no two electrons can occupy the same quantum state, in accordance with the Pauli exclusion principle.

The concept of an indivisible quantity of electric charge was theorized to explain the chemical properties of atoms, beginning in 1838 by British natural philosopher Richard Laming; the name *electron* was introduced for this charge in 1894 by Irish physicist George Johnstone Stoney. The electron was identified as a particle in 1897 by J. J. Thomson and his team of British physicists.

In many physical phenomena, such as electricity, magnetism, and thermal conductivity, electrons play an essential role. An electron in motion relative to an observer generates a magnetic field, and will be deflected by external magnetic fields. When an electron is accelerated, it can absorb or radiate energy in the form of photons. Electrons, together with atomic nuclei made of protons and neutrons, make up atoms. However, electrons contribute less than 0.06% to an atom's total mass. The attractive Coulomb force between an electron and a proton causes electrons to be bound into atoms. The exchange or sharing of the electrons between two or more atoms is the main cause of chemical bonding.

According to theory, most electrons in the universe were created in the big bang, but they may also be created through beta decay of radioactive isotopes and in high-energy collisions, for instance when cosmic rays enter the atmosphere. Electrons may be destroyed through annihilation with positrons, and may be absorbed during nucleosynthesis in stars. Laboratory instruments are capable of containing and observing individual electrons as well as electron plasma, whereas dedicated telescopes can detect electron plasma in outer space. Electrons have many applications, including welding, cathode ray tubes, electron microscopes, radiation therapy, lasers and particle accelerators.

06. සිංහලට පරිවර්තනය කරන්න.
Translate into Sinhala

Law

Civil law is the legal system used in most countries around the world today. In civil law the sources recognised as authoritative are, primarily, legislation—especially codifications in constitutions or statutes passed by government—and custom. Codifications date back millennia, with one early example being the Babylonian *Codex Hammurabi*. Modern civil law systems essentially derive from the legal practice of the 6th-century Eastern Roman Empire whose texts were rediscovered by late medieval Western Europe. Roman law in the days of the Roman Republic and Empire was heavily procedural, and lacked a professional legal class. Instead a lay magistrate, *iudex*, was chosen to adjudicate. Precedents were not reported, so any case law that developed was disguised and almost unrecognised. Each case was to be decided afresh from the laws of the State, which mirrors the (theoretical) unimportance of judges' decisions for future cases in civil law systems today. From 529–534 AD the Byzantine Emperor Justinian I codified and consolidated Roman law up until that point, so that what remained was one-twentieth of the mass of legal texts from before. This became known as the *Corpus Juris Civilis*. As one legal historian wrote, "Justinian consciously looked back to the golden age of Roman law and aimed to restore it to the peak it had reached three centuries before." The Justinian Code remained in force in the East until the fall of the Byzantine Empire. Western Europe, meanwhile, relied on a mix of the Theodosian Code and Germanic customary law until the Justinian Code was rediscovered in the 11th century, and scholars at the University of Bologna used it to interpret their own laws. Civil law codifications based closely on Roman law, alongside some influences from religious laws such as Canon law, continued to spread throughout Europe until the Enlightenment; then, in the 19th century, both France, with the *Code Civil*, and Germany, with the *Bürgerliches Gesetzbuch*, modernised their legal codes. Both these codes influenced heavily not only the law systems of the countries in continental Europe (e.g. Greece), but also the Japanese and Korean legal traditions. Today, countries that have civil law systems range from Russia and China to most of Central and Latin America.

International law can refer to three things: public international law, private international law or conflict of laws and the law of supranational organizations.

Public international law concerns relationships between sovereign nations. The sources for public international law development are custom, practice and treaties between sovereign nations, such as the Geneva Conventions. Public international law can be formed by international organisations, such as the United Nations (which was established after the failure of the League of Nations to prevent the Second World War), the International Labour Organisation, the World Trade Organisation, or the International Monetary Fund. Public international law has a special status as law because there is no international police force, and courts (e.g. the International Court of Justice as the primary UN judicial organ) lack the capacity to penalise disobedience. However, a few bodies, such as the WTO, have effective systems of binding arbitration and dispute resolution backed up by trade sanctions.

Conflict of laws (or "private international law" in civil law countries) concerns which jurisdiction a legal dispute between private parties should be heard in and which jurisdiction's law should be applied. Today, businesses are increasingly capable of shifting capital and labour supply chains across borders, as well as trading with overseas businesses, making the

07. සිංහලට පරිවර්තනය කරන්න.
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Conflict of laws (or "private international law" in civil law countries) concerns which jurisdiction a legal dispute between private parties should be heard in and which jurisdiction's law should be applied. Today, businesses are increasingly capable of shifting capital and labour supply chains across borders, as well as trading with overseas businesses, making the question of which country has jurisdiction even more pressing. Increasing numbers of businesses opt for commercial arbitration under the New York Convention 1958.

European Union law is the first and, so far, only example of a supranational legal framework. Given the trend of increasing global economic integration, many regional agreements—especially the Union of South American Nations—are on track to follow the same model. In the EU, sovereign nations have gathered their authority in a system of courts and political institutions. These institutions are allowed the ability to enforce legal norms both against or for member states and citizens in a manner which is not possible through public international law. As the European Court of Justice said in the 1960s, European Union law constitutes "a new legal order of international law" for the mutual social and economic benefit of the member states.