Exam sample 2024/2025

PART I – READING COMPREHENSION (5points)

READ THE FOLLOWING TEXT:
1. FOR 1-4, CHOOSE THE CORRECT ANSWER.
2. FOR 5-10, DECIDE WHETHER THE STATEMENT IS TRUE OR FALSE.

What is Information Technology? – Text sample I

Information Technology (IT) is the application of computers and internet to store, retrieve, transmit, and manipulate information, often in the context of a business or other enterprise. IT is considered a subset of information and communications technology (ICT) and has evolved according to the needs.

It is worthwhile noting that the term IT is commonly used as a synonym for computers and computer networks, but it also encompasses other information distribution technologies such as television and telephones. Several industries are associated with information technology, including computer hardware, software, electronics, semiconductors, internet, telecom equipment, engineering, healthcare, e-commerce, and computer services.

Thanks to the continuous development of computers, the original computing systems became minicomputers and later personal computers took the lead. Nowadays, mobile phones are dethroning the personal computer and computing is evolving faster to become disembodied more like a cloud, becoming accessible more easily whenever needed. Information technology has transformed people and companies and has allowed digital technology to influence society and economy alike. It has, in this sense, shaped societies and adapted itself to people's needs.

Humans were the first 'computers'. Then, machines were invented to carry out the computational tasks. Now these machines have given way to new form of information technology. Information has become disembodied accessible from anywhere through cloud technology. Recent advances in IT is the consequence of the development in computing systems.

Humans have been storing, retrieving, manipulating, and communicating information since the Sumerians in Mesopotamia developed writing in about 3000 BC, but the term *information technology* in its modern sense first appeared in a 1958 article published in the *Harvard Business Review*; when authors Harold J. Leavitt and Thomas L. Whisler commented that "the new technology does not yet have a single established name. We shall call it information technology (IT)." Their definition consists of three categories: techniques for processing, the application of statistical and mathematical methods to decision-making, and the simulation of higher-order thinking through computer programs. […].

1. Information technology is changing principally because of …
   A. the changing needs
   B. new technological advances
   C. people's demand
   D. scientific drive
2. According to the author, the first computers were …
   A. calculators
   B. humans
   C. nature
   D. mobile phones
3. Development of information technology is the result of …
   A. advances in computing systems
   B. development of machinery in general
   C. acquisition of knowledge
   D. general public demand
4. The fact that computing systems are taking the form of clouds means …
   A. computers have become smaller
   B. the usage of data increased
   C. computing power is becoming disembodied
   D. the size of data increased

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5. Information technology is an independent field and has nothing to do with other fields.
   - o True
   - o False
6. Information technology facilitates the communicational systems.
   - o True
   - o False
7. The first 'computers' developed thanks to human contribution.
   - o True
   - o False
8. The cloud technology implies on-site connection to the servers or networks.
   - o True
   - o False
9. The authors of the article published in *Harvard Business Review* firstly introduced the term *information technology* in its original meaning.
   - o True
   - o False
10. Technological development is not limited to humans.
    - o True
    - o False

Garry Kasparov: Don't Fear Intelligent Machines. Work With Them – Text sample II

This story begins in 1985, when at age 22, I became the World Chess Champion after beating Anatoly Karpov. Earlier that year, I played what is called simultaneous exhibition against 32 of the world's best chess-playing machines in Hamburg, Germany. I won all the games, and then it was not considered much of a surprise that I could beat 32 computers at the same time. To me, that was the golden age. Machines were weak, and my hair was strong. Just 12 years later, I was fighting for my life against just one computer in a match called by the cover of "Newsweek" "The Brain's Last Stand". No pressure. From mythology to science fiction, human versus machine has been often portrayed as a matter of life and death. John Henry, called the steel-driving man in the 19th century African American folk legend, was pitted in a race against a steam-powered hammer bashing a tunnel through mountain rock. John Henry's legend is a part of a long historical narrative pitting humanity versus technology. And this competitive rhetoric is standard now. We are in a race against the machines, in a fight or even in a war.

Jobs are being killed off. People are being replaced as if they had vanished from the Earth. It's enough to think that the movies like "The Terminator" or "The Matrix" are nonfiction. There are very few instances of an arena where the human body and mind can compete on equal terms with a computer or a robot. Actually, I wish there were a few more. Instead, it was my blessing and my curse to literally become the proverbial man in the man versus machine competition that everybody is still talking about. In the most famous human-machine competition since John Henry, I played two matches against the IBM supercomputer, Deep Blue. Nobody remembers that. I won the first match — In Philadelphia, before losing the rematch the following year in New York. But I guess that's fair. There is no day in history, special calendar entry for all the people who failed to climb Mt Everest before Sir Edmund Hillary and Tenzing Norgay made it to the top. And in 1997, I was still the world champion when chess computers finally came of age. I was Mt Everest, and Deep Blue reached the summit. I should say of course, not that Deep Blue did it, but its human creators — Anantharaman, Campbell, Hoane, Hsu. Hats off to them.

As always, machine's triumph was a human triumph, something we tend to forget when humans are surpassed by our own creations. Deep Blue was victorious, but was it intelligent? No, no it wasn't, at least not in the way Alan Turing and other founders of computer science had hoped. It turned out that chess could be crunched by brute force, once hardware got fast enough and algorithms got smart enough. Although by the definition of the output, grandmaster-level chess, Deep Blue was intelligent. But even at the incredible speed, 200 million positions per second, Deep Blue's method provided little of the dreamed-of insight into the mysteries of human intelligence. Soon, machines will be taxi drivers and doctors and professors, but will they be "intelligent?" I would rather leave these definitions to the philosophers and to the dictionary.

1. Which game was won by Kasparov against Deep Blue computer?
A. the first match
B. the second match
C. the match in Hamburg, Germany
D. the race against the machines
2. According to the author, will machines be "intelligent"?
A. philosophers would tell
B. they will never be
C. when they can climb Mt Everest
D. when they reach 200 million positions/second
3. Human versus machine has been often portrayed as.....
A. a matter of life and death
B. a love story
C. author doesn't know
D. human triumph
4. Human mind can compete in equal terms with a computer or a robot in ...?
A. everything
B. very few instances
C. nothing
D. language

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5. Kasparov won against Karpov.
o True
o False
6. Kasparov won at chess against 32 computers at the same time.
o True
o False
7. According to Alan Turing, Deep Blue is intelligent.
o True
o False
8. Deep Blue computer won against Kasparov in New York.
o True
o False
9. According to the author, the machine triumph is a human triumph.
o True
o False
10. The human creator of Deep Blue was Anantharaman.
o True
o False

! In the Reading Comprehension section, you are going to have **a total of 20 follow-up sentences/ questions** (true/ false information or multiple choice – following the structure given). The score is 0.25p/ item (sentence/ question) → 5p.

PART II – GRAMMAR and VOCABULARY (4points) – only **4 tasks** in the exam (each task consisting of 1p and each item consisting of 0.1p).

I. We can change the form of a word (e.g. from a verb to a noun) by adding suffixes. Use the words given in capitals at the end of sentences and the suffixes below to make new words and fill in the gaps.

-ment	**-ion**	**-ive**	**-y**	**-ise**
-ity	**-ous**	**-able**	**-ed**	

1. Engineers can now apply …… technological solutions to automatize many tasks that required human input. **ADVANCE**
2. Recent …… in machine learning has allowed us to create machines that can win with humans in some areas. **DEVELOP**
3. Machines are not always …… and sometimes break down so we should limit how much we depend on them in everyday life. **RELY**
4. The …… of the Universe is slightly different nowadays. **COMPLEX**
5. There are …… reasons why we should create artificial intelligence. **NUMBER**
6. The …… of gunpowder was one of the most significant achievements of the Middle Ages in China. **INVENT**
7. Many times researchers study some areas to satisfy their …… but as a result new things are invented. **CURIOUS**
8. Their …… was quickly confirmed, making it the first confirmation of planets outside our Solar System. **DISCOVER**
9. It is our duty to …… our company to gain technological edge. **MODERN**
10. Some people believe that AI is such a …… technology that it will change our lives just as the Internet or TV did. **TRANSFORM**

II. Use the words given in capitals to form new words that fit in the space.

We often think of ourselves as living in a time of (1) ..... **(CONTINUE)** technological change and development. We tend to believe that we are unique in history in dealing with a constantly (2) ..... **(EVOLVE)** world of gadgets, devices and innovations. However, the end of the nineteenth-century and the start of the twentieth was also a time that saw many (3) ..... **(REVOLT)** changes. People had needed to show (4) ..... **(FLEXIBLE)** throughout the nineteenth-century, as the effects of the Industrial Revolution meant constantly making (5)

..... **(ADJUST)** to deal with changing working conditions. Towards the end of the century, though, people had to become more (6) ..... **(ADAPT)** than ever before. The typewriter (1873), the telephone (1876), the electric light bulb (1879) and other (7) ..... **(INFLUENCE)** developments gave people the (8) ..... **(CAPABLE)** to live and work in ways their grandparents could not have imagined. Over the next 30 years, little remained (9) ..... **(ALTER)** as the camera, the cinema, the phonograph, the plane and radio all had an (10) .... **(ELECTRIC)** effect on people and society.

III. Starting from the root *tech*-, complete the following sentence with appropriate forms.

1. ***Tech***_____ speaking, you are not allowed to enter the building.
2. Karl got a good job as a lab ***tech***_____ in the university.
3. In this country, young people ***tech***_____ become adults at the age of 18.
4. By the end of the year, we'll have been ***tech***_____ all the procedures in terms of bureaucracy.
5. Computer ***tech***_____ makes huge advances every year.
6. Andrea has a very interesting ***tech***_____ for remembering vocabulary.
7. He is studying a ***tech***_____ related field.
8. At the time, using internet to call your friends was a ***tech***_____ innovation.
9. The process of ***tech***_____ is still emerging in our company.
10. Publicity photos of celebrities have usually been ***tech***_____ enhanced.

IV. Put one suitable preposition or adverb in each space.

in	**with**	**for**	**with**	**to**
out	**for**	**to**	**under**	**with**

1. Your performance ..... this term contrasts favourably last term's.
2. Helen had great admiration ..... her history teacher.
3. The favourite candidate dropped ..... of the race.
4. Carol doesn't communicate greatly ..... his supervisor.
5. Apparently, a number of army officers were implicated ..... the plot.
6. Many young people become addicted ..... technology through ignorance.

7. I was ..... the impression that you published your findings.
8. I'm afraid I'm not very good ..... mathematics.
9. The minister stated that no real alternative ..... the plan existed.
10. The town is famous ..... its number of academicians.

V. Rearrange the letters to find words by using the definitions.

1. **U C V M U A -** _ _ _ _ _ _ (a space that has had all the air and any other gases removed from it)
2. **E A C V O G E R -** _ _ _ _ _ _ _ _ (the amount or extent to which something is covered)
3. **R T R S A I R E L E T -** _ _ _ _ _ _ _ _ _ _ _ _ (relating to the Earth)
4. **L U A T E T I D -** _ _ _ _ _ _ _ _ (height above sea level)
5. **M A N R I T S T -** _ _ _ _ _ _ _ _ (to send out electrical signals using a radio, television, or computer network)
6. **A O D R B N B D A -** _ _ _ _ _ _ _ _ _ _ (type of connection to the internet that allows you to receive or send a lot of information very quickly)
7. **I B E R D S -** _ _ _ _ _ _ (broken or torn pieces of something larger)
8. **fiber T C S O I P – fiber** _ _ _ _ _ _ (the use of long fibers of glass or plastic to carry information from one place to another as light signals
9. **E Y C L T A N -** _ _ _ _ _ _ _ (the delay before a transfer of data begins following an instruction for its transfer)
10. **S A S V S E I T I -** _ _ _ _ _ _ _ _ _ (meant to help or facilitate)