



**INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, DESIGN AND  
MANUFACTURING, KANCHEEPURAM  
DEPARTMENT OF SCIENCES AND HUMANITIES**

UG Course

**Effective Language and Communication Skills (HS1000)**

July - November Semester, 2023

End-semester Examination

Roll No: Cs 2311027

Course: HS1000

Name: Y. HARITH

Duration – 2 Hours

Date of examination: 14<sup>th</sup> December 2023

Total marks: 40

**Instructions:**

- This question paper consists of 3 sections and 31 questions (both subjective and objective).
- Read the instruction given for each question.
- Write the question number and answer the questions.
- Adhere to the word limit specified for the questions.

**Section – A (13 Marks)**

**I. Read the article given below.**

**Living Light**

Ⓐ The ability of some species to create light known as bioluminescence — is both magical and commonplace. Magical, because of its glimmering beauty. Commonplace, because many life forms can do it. On land the most familiar examples are fireflies, flashing to attract mates on a warm summer night. But there are other luminous land organisms, including glow-worms, millipedes, and some ninety species of fungus. Even some birds, such as the Atlantic puffin, have beaks that glow in the dark.

Ⓑ But the real biological light show takes place in the sea. Here, an astonishing number of beings can make light. Some, such as ostracods, are like ocean fireflies, using flashes of light to attract a mate. There are also glowing bacteria, and light-making fish, squid, and jellyfish. Indeed, of all the groups of organisms known to make light, more than four-fifths live in the ocean.

Ⓒ As a place to live, the ocean has a couple of peculiarities. Firstly, there is almost nowhere to hide, so being invisible is very important. Secondly, as you descend, sunlight disappears. At first, red light is absorbed. Then the yellow and green parts of the spectrum disappear, leaving just the blue. At 200 meters below the surface, the ocean becomes a kind of perpetual



twilight and at 600 meters the blue fades out too. In fact, most of the ocean is as black as the night sky. These factors make light uniquely useful as a weapon or a veil.

Ⓓ In the ocean's upper layers, where light penetrates, creatures need to blend in to survive. Any life form that stands out is in danger of being spotted by predators — especially those swimming below, looking up. Many life forms solve this problem by avoiding the light zone during the day. Others such as jellyfish and swimming snails are transparent, ghostlike creatures, almost impossible to see.

Ⓔ Other sea species use light to survive in the upper layers-but how? Some, such as certain shrimp and squid, illuminate their bellies to match the light coming from above. This allows them to become invisible to predators below. Their light can be turned on and off at will — some even have a dimmer switch. For example, certain types of shrimp can alter how much light they give off, depending on the brightness of the water around them. If a cloud passes overhead and briefly blocks the light, the shrimp will dim itself accordingly.

Ⓕ But if the aim is to remain invisible, why do some creatures light up when they are touched, or when the water nearby is disturbed? A couple of reasons. First, a sudden burst of light may startle a predator, giving the prey a chance to escape. Some kinds of deep-sea squid, for example, give a big squirt of light before darting off into the gloom.

Ⓖ Second, there is the principle of "the enemy of my enemy is my friend." Giving off light can help summon the predator of your predator. Known as the "burglar alarm" effect, this is especially useful for tiny life forms, such as dinoflagellates, that cannot swim fast. For such small beings, water is too viscous to allow a quick getaway —it would be like trying to swim through syrup. Instead, when threatened by a shrimp, for example, these organisms light up. The flashes attract larger fish that are better able to spot and eat the shrimp. The chief defense for these tiny organisms is therefore not fight or flight but light.

Source: Steven Haddock, Monterey bay aquarium research institute

**I A. Read the following questions and choose the correct answer. (4 x 1 = 4 Marks)**

1. Which of these is NOT explained in the passage?
  - a. why some bioluminescent creatures produce light
  - b. why invisibility is important to many sea creatures
  - ☒ c. why some birds have beaks that glow in the dark
  - d. how various creatures near the ocean's surface hide themselves
  
2. In which position should this sentence be added to paragraph D?  
*These creatures only rise toward the surface at night.*
  - a. after the first sentence
  - b. after the second sentence
  - ☒ c. after the third sentence
  - d. after the fourth sentence



3. According to paragraph E, how do certain shrimp in the ocean's upper layers use bioluminescence?
  - a. as a decoy
  - ☒ b. as camouflage
  - c. as an alarm
  - d. as a protective layer
4. What is meant by the "burglar alarm" effect?
  - a. Light allows predators to spot their prey in total darkness.
  - b. A sudden flash of light startles predators, allowing their prey to escape.
  - c. When lit up, tiny organisms confuse predators of their predators using light.
  - ☒ d. Organisms produce light, which attracts the predators of their predators.

**I B. Answer the following questions in about 50 words. (4 x 1 = 4 Marks)**

5. Explain the visibility at sea.
6. How does bioluminescence species at sea protect themselves, explain with examples?
7. Can you list the bioluminescence species discussed in this article?
8. What is the main idea of the articles?

**II. Read the following paragraphs (question no: 9 & 10). Write a suitable topic sentence for the following paragraphs. (2 x 1 = 2 Marks)**

9. History of National Libraries and International Exchange of <sup>Knowledge</sup> ~~Information~~  
 In developed countries, national libraries have existed since sixteenth century, three centuries before developing countries built national libraries. By the nineteenth century, most countries in Europe had already established national libraries. Most developing countries, built the national library in nineteenth and twentieth centuries and many developing countries are still in process of establishing the library. The typical national library is meant to be the finest collection of books in the country, the national book archive, and a source of national pride. Although it is important for a national library in a developing country to collect the national literature, and any other literature pertaining to that country, it is also important for the library to collect a wide range of scholarly literature published in other countries.

10. INDIA : The Land of Everything  
 While Mumbai, the financial capital, and Delhi, the political heart of the nation, stand as bustling metropolises teeming with opportunities and complexities, they also grapple with issues of overpopulation, pollution, and congestion. On the other hand, cities like Jaipur and Udaipur captivate with their rich heritage and regal architecture, inviting travellers into the enchanting world of Rajasthan's royal past. Meanwhile, Bangalore, known as the Silicon Valley of India, emerges as a tech-savvy hub, fostering innovation and entrepreneurship. These cities, with their distinctive characters and contrasting characteristics, collectively embody the kaleidoscope of India's urban landscape, illustrating the nation's remarkable diversity and the intricate interplay between tradition and modernity.



**III. Read the below given sentence/paragraphs. Identify the type of sentence in the sentence/paragraphs given below and choose the answer. (3 x 1 = 3 Marks)**

11. ❶ The sun shines brightly in the clear blue sky and a gentle breeze rustles the leaves in the trees. ❷ While the sun bathes the world in warmth, the rustling leaves provide a soothing backdrop for a perfect Sunday. ❸ Creating a serene atmosphere for the families to spend their weekends.

- ✓ a. 1- compound, 2- simple, 3- simple
- ~~b.~~ 1- compound, 2- complex, 3- simple
- ✗ c. 1- complex, 2- complex, 3- complex
- d. 1- compound, 2- complex, 3- complex

12. In the forest, the squirrels and otters play with corns on a sunny afternoon in the tropical rainforest.

- ✓ a. Complex
- b. Compound
- c. Simple
- d. Complex-compound

13. ❶ The old library was filled with dusty and forgotten books. ❷ The librarian decided to organize them to create a more space for the students and the local reading community. ❸ With determination and patience, the librarian transformed the library into a haven for avid readers and scholars who seek knowledge and solace within its walls.

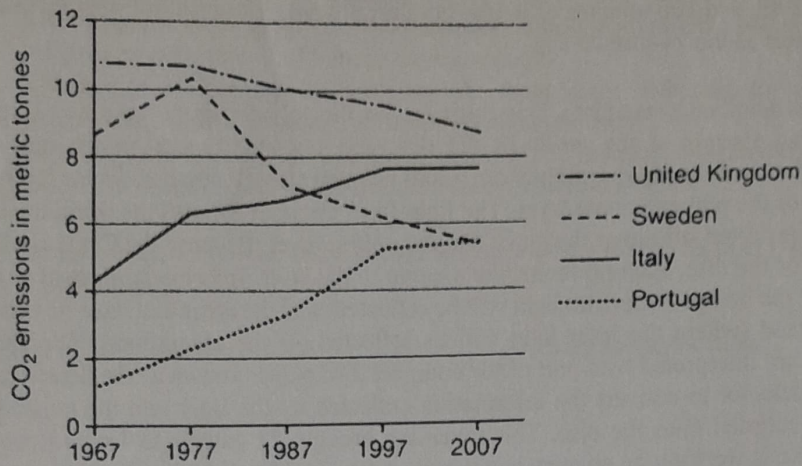
- ✗ a. 1- simple, 2- compound, 3- complex
- b. 1- compound, 2- compound, 3- complex
- ✗ c. 1- compound, 2- simple, 3- compound
- ~~d.~~ 1- simple, 2- simple, 3- complex

**Section – B (13 Marks)**

**IV. Answer any ONE of the following questions (14 or 15). Interpret the graph given below. Use the data given in the graph and write a paragraph in about 150 - 200 words. (1 x 5 = 5 Marks)**

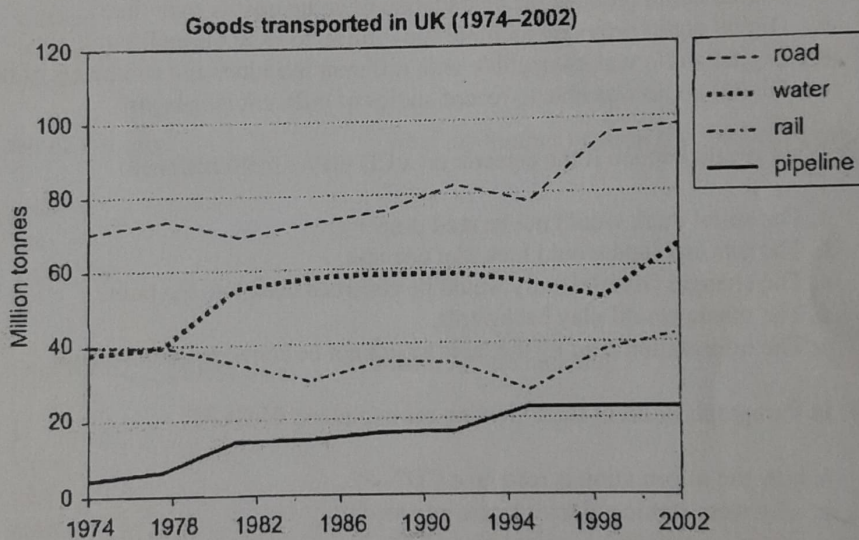
14. The graph below shows the average carbon dioxide (CO<sub>2</sub>) emission per person (in metric tonnes) in four European countries from 1967 to 2007.

Average carbon dioxide (CO<sub>2</sub>) emissions per person, 1967–2007



(Or)

15. The graph below shows the amount of goods (in million tonnes) transported in the UK from 1974 to 2002.



V. Read the following passages and answer the multiple choice questions (MCQs) given below. (4 x 1 = 4 Marks)

Ⓐ Compact discs (CDs), which may be found in over 25 million American homes, not to mention backpacks and automobiles, first entered popular culture in the 1980s. But their history goes back to the 1960s, when an inventor named James Russell decided to create an alternative to his scratched and warped phonograph records—a system that could record, store, and replay music without ever wearing out. The result was the compact disc (CD). Made from 1.2 mm of polycarbonate plastic, the disc is coated with a much thinner aluminium layer that is then



protected with a film of lacquer. The lacquer layer can be printed with a label. CDs are typically 120 mm in diameter, and can store about 74 minutes of music. There are also discs that can store 80, 90, 99, and 100 minutes of music, but they are not as compatible with various stereos and computers as the 74-minute size.

⑥ The information on a standard CD is contained on the polycarbonate layer, as a single spiral track of pits, starting at the inside of the disk and circling its way to the outside. This information is read by shining light from a 780 nm wavelength semiconductor laser through the bottom of the polycarbonate layer. The light from the laser follows the spiral track of pits, and is then reflected off either the pit or the aluminium layer. Because the CD is read through the bottom of the disc, each pit looks like a bump to the laser. Information is read as the laser moves over the bumps (where no light will be reflected) and the areas that have no bumps, also known as land (where the laser light will be reflected off the aluminium). The changes in reflectivity are interpreted by a part of the compact disc player known as the detector. It is the job of the detector to convert the information collected by the laser into the music that was originally recorded onto the disc. This invention brought 22 patents to James Russell, who today says he is working on an even better system for recording and playing back music.

16. According to the article, what was one of the key advantages of using a digital audio format in CDs compared to analog formats like vinyl records?

- a. Digital audio had a better aesthetic quality.
- b. Digital audio reduced the degradation of audio quality over time.
- c. Digital audio provided multiple file formats to store the audio.
- ☒ d. Digital audio was compatible with different machines and computers of that time.
- e. Digital audio was able to record audios of different languages.

17. What would happen if the detector on a CD player malfunctioned?

- a. The spiral track would not be read properly.
- b. The pits and land would look like one unit.
- c. The changes in reflectivity would be absorbed back into the laser.
- d. The music would play backwards.
- ☒ e. The information read by the laser would not be converted into music.

18. In Paragraph B, all of the following are explained EXCEPT:

- a. how the information is read on a CD? ✓
- ☒ b. why were semiconductor lasers invented?
- c. where information is stored on a CD? ✓
- d. what are pits and bumps? ✓
- e. what is the purpose of the aluminium layer of a CD? ✓

19. What challenges and opportunities might James Russell face in developing a superior music recording and playback system today, considering technological advancements since the invention of the compact disc?

- ☒ a. Challenges in keeping up with evolving technologies, ensuring compatibility, and addressing consumer preferences for convenience.

- b. Challenges in keeping up with the evolving formats, buying more templates and addressing the concerns of students.
- c. Challenges in keeping up with the corporate culture, handling the social media and addressing consumer preferences for convenience.
- d. Challenges in keeping up with the AI technology, adhering to taxation by governments and addressing the concerns of the industry.
- e. Challenges in keeping up with the demand of the industry, maintaining work-life balance and addressing consumer preferences for convenience.

VI. Read the following sentences and fill in the blanks with the correct form of the verb.  
(4 x 1 = 4 Marks)

20. Either my mother or my father is coming to the meeting.

- ~~a.~~ is
- b. are
- c. were
- d. was

21. Everything works fine when we have an effective plan.

- a. work
- b. worked
- c. will work
- ~~d.~~ works

22. A pair of trousers is what my mother brought me for Deepavali.

- a. were
- b. are
- c. would be
- ~~d.~~ is

23. None of them were available for the meeting.

- a. is
- ~~b.~~ were
- c. was
- d. have

#### Section – C (13 Marks)

VII. Answer any ONE of the following questions (24 or 25). Read the context given below and write an email. (1 x 5 = 5 Marks)

24. As your company is growing constantly and you need a bigger and better work place, your company is relocating to a new address. Write an email to your customers informing about the change in address.

(Or)



25. As a former student, write an email to your professor, Dr Vasanth, thanking him for his teaching and guidance that contributed to your overall development. Sign the email as Vijay.

**VIII. Answer any ONE of the following questions (26 or 27). Write a paragraph in about 150 – 200 words on any one of the topic sentences given below. (1 x 5 = 5 Marks)**

26. Video games offer immersive experiences, captivating players with diverse worlds and innovative gameplay.

(Or)

27. Ways to relieve stress are important for physical and mental health in modern human life.

**XI. Read the passage and choose the appropriate words given below to fill the blanks. (4 x 1 = 4 Marks)**

Indian thought is not characteristically despondent or -----(28). Probably no other religious system has so repeatedly affirmed that we are born from bliss, we exist in bliss and we -----(29) to bliss. Indian thought has also -----(30) taken the individual as its central focus. The group, the society and the country are all made up with the individual as the -----(31).

28. (a) free  
(b) forceful  
(c) bleak  
(d) brave  
(e) happy

29. (a) give  
(b) spend  
(c) reach  
(d) return  
(e) pray

30. (a) quietly  
(b) repeatedly  
(c) consistently  
(d) overzealously  
(e) tactfully

31. (a) nucleus  
(b) point  
(c) forum  
(d) state  
(e) reality