



CS/B.Arch/SEM-1/ARCH-101/2012-13

GROUP – B

(Short Answer Type Questions)

Write short notes on any *three* of the following.

3 × 5 = 15

2. The importance of listening in communication.
3. Barriers to good communication.
4. Planning, Preparation, Practice — the 3 P's of effective presentation.
5. The nature and need for business memos.

GROUP – C

(Long Answer Type Questions)

Answer the following.

3 × 15 = 45

6. *Comprehension* — Read the given passage carefully and answer the questions that follow :

The sun is the most direct source of energy. It powers the flow of wind and water cycles and sustains all life. Plants use this energy to synthesise carbohydrates from simple substances like carbon dioxide and water. All the food is derived from the process of photosynthesis. In fact, the energy by which all the animals including human beings live is generated by the oxidation of the food produced by the plants.

The sun contains in its core hydrogen nuclei moving at very great speeds. Whenever these nuclei collide and fuse to form a nucleus of a heavier element, it results in nuclear reactions. These reactions generate tremendous amount of energy. It is this energy that powers the sun.

The sun emits light of different wavelengths. If sunlight is passed through a prism, each of these wavelength is refracted by a different amount. Violet has the shortest wavelength and red has the longest. The wavelength of green is midway between that of violet and red. Light with wavelength shorter than that of violet is called ultraviolet light. Light with wavelength longer than that of red light is called infrared light. About one third of the light from the sun is infrared.



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We know that nuclear reactions that go on in the interior of the sun liberate a large amount of energy. Nuclei of deuterium, which is the heaviest isotope of hydrogen, collide in the sun's interior to produce helium. The energy liberated in these reactions fires the sun, which, in turn, emits lights of different wavelengths. Of these wavelengths, it is the infrared wavelengths that heat up the earth. The reaction in which the hydrogen in the sun is converted into helium is called a fusion reaction.

Questions :

- i) What are the various uses of the sun's energy ? 2
- ii) Explain how energy is generated in the sun. 2
- iii) What is the difference between violet, green and red lights ? 2
- iv) How is helium produced ? 2
- v) State three important facts about infrared light. 3
- vi) From your reading of the passage, explain :
 - a) Photosynthesis
 - b) Fusion reaction. 2 + 2

7. *Letter Writing :*

Assume that you are the Purchase Manager of Alpha Construction Company, Salt Lake City, Kolkata. Your company sent an order for 15 truck loads of cement to National Building Materials Suppliers, Hosur Road, Bangalore, about two months ago. But you have received only 12 truck loads till now. Write a letter to the Sales and Marketing Manager of NBMS making a complaint and asking him to send the 3 remaining truck loads soon, as it is delaying your project.

8. *Paragraph Writing :*

Write a paragraph of about 150 words on any *one* of the following topics :

- a) Problems faced while travelling by public transport.
- b) An interesting experience one Sunday morning.