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**J 3721**

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2009.

First Semester

Civil Engineering

HS 1 X 01 — TECHNICAL ENGLISH

(Common to all branches of B.E./B.Tech.)

(Regulation 2004)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Match the words in Column 'A' with their meanings in Column 'B' :

A

B

(a) drawback

(i) severe

(b) distress

(ii) disadvantage

(c) stringent

(iii) moving between places

(d) plying

(iv) suffering.

2. Form adjectives from the following words using suitable suffixes :

(a) compensation

(b) argument

(c) description

(d) industry.

3. Change the voice in the following sentences and rewrite them :

(a) They will start production on the new type of reactor soon.

(b) We pass an electric current across the electrodes.

4. Punctuate the following passage :

any animal skin can be made into leather but the skins chiefly used come from cattle, sheep, goats pigs and horses. To a lesser extent the skins from dogs deer reptiles marine animals, fish, and birds are also used snakes, lizards whales, and sharks contribute to leather manufacture.

5. Fill in the blanks in the following passage with suitable prepositions :

The ideals and practices of child rearing vary \_\_\_\_\_ culture to culture. In general, the more rural the community, the more uniform are the customs \_\_\_\_\_ child upbringing. In more technologically developed societies, the period of childhood and adolescence tends to be extended \_\_\_\_\_ a long time, resulting in more opportunity \_\_\_\_\_ education and greater variety in character development.

6. Fill in the blanks in the following sentences with the comparative forms of the adjectives given in brackets :

- (a) Which is the \_\_\_\_\_ (heavy), iron or lead?
- (b) An aeroplane can travel \_\_\_\_\_ (fast) than a train.

7. Write a single sentence definition for each of the following terms :

- (a) microscope
- (b) microphone

8. Complete the following sentences indicating the conditions in which something will happen :

- (a) If you changed your job, \_\_\_\_\_
- (b) You wouldn't have got into such difficulties, if \_\_\_\_\_.

9. Expand the following compound nouns :

- (a) Concrete structure
- (b) Cylinder walls
- (c) Power cable
- (d) Friction losses.

10. Make antonyms of the following words by adding suitable prefixes :

- (a) moral
- (b) approve
- (c) behave
- (d) visible.

PART B — (5 × 16 = 80 marks)

11. Read the passage and answer the questions that follow it :

Primitive man found out by trial and error how to carry out a certain number of simple chemical changes, but under the ancient Egyptian civilization men learned how to work copper, tin, iron and precious metals; knew how to make pottery, glass, soap and colouring agents, and how to bleach and dye textile fabrics. These arts were the beginnings of the chemical industries of today.

The early scientific study of chemistry, known as alchemy, grew up in the first few centuries A.D. at Alexandria in Egypt. There two important things came together : one was the practical knowledge of the Egyptian workers in metals, pottery and dyes; the other was the learning of the earlier Greek philosophers, such as Hippocrates and Aristotle. At the same time alchemy was much influenced by ideas from the East about magic and astrology — foretelling the future from the stars.

Greek philosophers regarded debate about the nature of matter as superior to experiment, and some held that all matter was made up of the same four 'elements' — earth, fire, air and water. Many people therefore thought that if these elements could be rearranged, one substance could be changed into another. For instance, a base metal could perhaps be turned into gold. The chief aim of the alchemists was to find a way of doing this.

Alchemy came under Arab influence when the armies of Islam conquered Egypt during the seventh century. The Arabs carried its study into Western Europe when they advanced into Spain. Many Arabic words are still used in chemistry — 'alkali', 'alcohol' and even 'alchemy' itself, which means 'the art of Egypt'. The greatest Arab alchemist was Jabir ibn Hayyan, possibly the same person as Geber, author of two important books on alchemy known from the Latin translations of the thirteenth century. Jabir claimed that mercury and sulphur were 'elements' like the four Greek ones. He said that all metals were composed of mercury and sulphur in different proportions. To change a base metal into gold required the proportions to be changed by the action of a mysterious substance which came to be called 'the philosopher's stone'. Alchemists searched in vain for this substance for several hundred years.

Alchemy was studied widely in Europe during the twelfth and following centuries, and attracted the attention of many learned men. Though they were doomed to fail in their attempts to make gold, their work led to the growth of a great deal of new chemical knowledge and of new chemical knowledge and of methods of making experiments. Many of the later European alchemists, however, were complete frauds who preyed upon trusting people by all sorts of tricks, and the subject fell into disrepute. By the first half of the sixteenth century, the aim of the alchemists had changed from the making of gold to the making of medicines. In particular they sought a fanciful substance called 'the elixir of life', a powerful medicine which was to cure all ills, and which some people thought would turn out to be the same substances as 'the philosopher's stone'. This phase of chemistry lasted till about 1700.

(a) Write the response which best reflects the meaning of the text : (5 × 1 = 5)

(i) Primitive man

- (1) Knew nothing about chemistry.
- (2) Succeeded in carrying out a few chemical processes.
- (3) Failed to carry out any chemical processes.
- (4) Knew how to work copper and pottery.

(ii) The practical basis of several modern chemical industries was developed

- (1) By the ancient Egyptians.
- (2) By prehistoric man.
- (3) Even before the ancient Egyptian civilization.
- (4) In the nineteenth century.

(iii) Alexandria was

- (1) The birthplace of the early science of chemistry.
- (2) The first chemical scientist.
- (3) The home of Greek philosophy.
- (4) Named after the wife of Hippocrates.

(iv) The ancient Greeks

- (1) Were superior to the Egyptians in chemical experiments.
- (2) Were more fond of discussing theories than doing practical work.
- (3) Were not interested in chemistry.
- (4) Taught the Egyptians how to work metal, pottery and dyes.

(v) Early alchemists tried to change

- (1) the element fire into water
- (2) all four elements into mercury.
- (3) the future using the stars.
- (4) inexpensive metals into gold.

(b) State whether the following statements are true or false : (5 × 1 = 5)

- (i) The Arab conquerors spread alchemy to Egypt.
- (ii) Jabir ibn Hayyan discovered 'the philosopher's stone'.
- (iii) From the twelfth to the eighteenth centuries alchemy was a somewhat disreputable study.
- (iv) Later alchemists directed their ambitions from gold to medicine.
- (v) After 1700 chemistry became unfashionable.

(c) Choose the definition which best reflects the meaning of the word as it is used in the text : (6 × 1 = 6)

- (i) agents
  - (1) businessmen
  - (2) substances
  - (3) workers
  - (4) representatives

(ii) bleach

(1) mould

(2) colour

(3) whiten

(4) hammer

(iii) debate

(1) discussion

(2) doubt

(3) payment

(4) persuasion

(iv) base

(1) bottom

(2) invaluable

(3) priceless

(4) common

(v) doomed

(1) died

(2) destined

(3) banned

(4) accustomed

(vi) disrepute

(1) disrespect

(2) disrepair

(3) discomfort

(4) disuse

12. (a) Imagine that your brother is preparing for the Plus two examination. He needs suggestions to get a better score in the examination. Write a letter to your brother explaining the importance of systematic preparation for the examination. Your letter should not exceed 200 words.

Or

- (b) Assume that you are staying in the college hostel as your residence is far away from the college. Write a letter to your friend, who is working in Hyderabad, describing various facilities available in the hostel. Your letter should not exceed 200 words.

13. Write two paragraphs on any ONE of the following topics. Each paragraph should not exceed 100 words :

- (a) Unemployment in rural areas

Or

- (b) Computer and its uses

14. (a) Write a set of eight recommendations for controlling noise pollution in cities.

Or

- (b) Write a set of eight recommendations that could put an end to child labour.

15. Two groups of sentences given below are not in the correct order. Select any ONE group of jumbled sentences and rewrite them in the correct order :

- (a) (i) One depends on using a membrane which will allow the water to pass, but will hold back the salts.
- (ii) The production of steam can be done by encouraging evaporation from the surface of sea water which is warmed but not raised to boiling point.
- (iii) Sea water can be used for agriculture after removing the excess salt.
- (iv) They are essentially industrial processes of a very energy-consuming kind.
- (v) The other is distillation, that is to say water vapour or steam is produced and this forms fresh water when it is condensed.

- (vi) The excess salt can be removed from sea water by using two basic methods.
- (vii) However, it is advisable to rely on evaporating methods since they are much less demanding.
- (viii) Both the membrane-filtering techniques and boiling technique require large amounts of concentrated energy.

Or

- (b) (i) Women with professional skills have to sacrifice their career in all respects for the benefit of their children.
- (ii) But this argument is quite untrue.
- (iii) This would end amateur child-rearing and allow the biological parents to fully develop their careers for the benefit of society.
- (iv) The traditional approach to parenthood is completely unsatisfactory.
- (v) Even if child-rearing is shared by the father, it simply means that two people waste time on an unproductive task for which they may be entirely ill-equipped.
- (vi) Because women spend time caring for their children, the services of many expensively trained teachers, doctors and other professionals are altogether lost to society.
- (vii) Critics may argue that children reared in this way would feel rejected, at least to some extent, by their natural parents.
- (viii) Society would be much better served if parenthood was made the responsibility of well-trained professional parents who would look after groups of children as a paid occupation.