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**Question Paper Code: 21001**

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2014.

Second Semester

Civil Engineering

01UEN201- TECHNICAL ENGLISH - II

(Common to all branches)

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions.

PART A - (10 x 2 = 20 Marks)

- Match the words in Column A with their meanings in Column B: (4 x 1/2 = 2)

(A)	(B)
(a) Disposal	(i) resulting in death
(b) Inedible	(ii) not moving or changing
(c) Fatal	(iii) getting rid of
(d) Stagnant	(iv) unfit to eat
- Fill in the gaps in the following passage with suitable prepositions: (4 x 1/2 = 2)

Artificial Intelligence (AI) is the science \_\_\_\_\_ developing computers that can learn and follow instructions \_\_\_\_\_ great accuracy and speed. An example \_\_\_\_\_ this is the use \_\_\_\_\_ expert systems. .
- Rewrite the following sentences using gerunds: (2 x 1 = 2)
  - To work in these conditions is a pleasure.
  - It is easier to read French than to speak it.

4. Complete the following sentences indicating the conditions in which something will happen: (2 x 1 = 2)
- (a) If you start early, \_\_\_\_\_
  - (b) \_\_\_\_\_, the manager would have rewarded you.
5. Write two words beginning with the prefix 'under and two words ending with the suffix 'age'. (4 x 1/2 = 2)
6. Expand the following compound nouns: (4 x 1/2 = 2)
- (a) Steel chair
  - (b) Temperature drop
  - (c) Power source
  - (d) Arithmetic unit
7. Link the sentences using suitable connectives (conjunctions). (2 x 1 = 2)
- (a) The construction of the new bridge was completed last year. Vehicles are not allowed on the bridge.
  - (b) Computerization is considered very essential. It can improve the information system.
8. Rewrite the following sentences in the indirect speech: (2 x 1 = 2)
- (a) The factory supervisor told the worker, "You can clean the tool with emery cloth".
  - (b) The Secretary said, "Repeated strikes have affected the company's progress".
9. Convert the following into yes or no questions: (4 x 1/2 = 2)
- (a) Science is beneficial to mankind.
  - (b) Einstein is a genius.
  - (c) Science and technology go together.
  - (d) The galaxies are increasing in numbers.

10. Fill in the blanks with the correct words given in brackets: (8 x 1/4 = 2)

- (a) Nobody can \_\_\_\_\_ the \_\_\_\_\_ plates. (steel/steal)
- (b) When there was \_\_\_\_\_, people \_\_\_\_\_ to cities. (fled/flood)
- (c) None \_\_\_\_\_ a comment when Antony \_\_\_\_\_ for a reply. (paused/passed)
- (d) The \_\_\_\_\_ of honour \_\_\_\_\_ a fortune. (made/maid)

PART - B (5 x 16 = 80 Marks)

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

An electron microscope is a sophisticated microscope that can magnify objects up to one million times their original size. Unlike a traditional microscope, an electron microscope can reveal some details of molecular structure and can be effectively used for chemical analysis. It has become an invaluable analytical tool, widely used in medical and industrial research establishments.

There are two used types of electron microscopes: the Transmission Electron Microscope (TEM) and the Scanning Electron Microscope (SEM). Transmission Electron Microscopes have extremely high resolution and can provide detailed information about the structure of organisms most of which are far too small to be seen at all with a normal optical microscope. TEMs can also be used for studying the arrangement of atoms and molecules in metal and other materials. In fact, they are effectively used, both to give information about the microstructure of new materials as they are being designed and also to help in the analysis of failures of materials. Most TEMs operate at accelerating voltages in the range of 50-100,000 V.

On the other hand, Scanning Electron Microscopes (SEM) have very different uses as they are very useful for looking at the surfaces of objects and can provide a completely different range of information. They may produce an extremely fine beam of electron, which swept to and fro across the specimen. They are extremely useful in studying the details and contours of different surfaces. They provide many other striking views of plant and animals cells that cannot be obtained by other means. In the microelectronics industry, SEMs have proved to be equally great asset. It is possible to use them to look in detail at the microcircuits that are now constructed on tiny silicon chips, the microscope is also used as an instrument to fabricate circuits by using the electron beam as a 'writing tool', controlling it by a computer so that the required circuit is produced on a special surface.

(a) Answer the following questions: (3 x 2 = 6)

- (i) What is the most remarkable feature of Transmission Electron Microscope?
- (ii) What are the two important uses of electron microscopes in material science?
- (iii) Can electron microscopes accurately describe the nature of the material under experiment?

(b) Read the following statements and mark True or False based on the text: (5 x 1 = 5)

- (i) TEM has high resolving power.
- (ii) SEM cannot be used in the microelectronic industry.
- (iii) SEM can provide striking views of animal cells.
- (iv) In TEM the electron beam is scanned to and fro across a specimen.
- (v) Electron microscopes are more useful than optical microscopes.

(c) Answer the following questions by choosing the best alternative option under each: (5 x 1 = 5)

- (i) Some of the finest details of molecular structure can be revealed by
  - (1) Traditional microscopes
  - (2) Optical microscopes
  - (3) Electron microscopes
- (ii) In fact, they are effectively used both to give information about the microstructure of new materials as they are being designed. What is being designed?
  - (1) Electron microscopes
  - (2) TEMs
  - (3) New materials
- (iii) TEMs can be used to
  - (1) Study details and contours of different surfaces.
  - (2) Study the arrangement of atoms and molecules in metal
  - (3) Look in detail at the microcircuits that are now constructed
- (iv) SEMs are very good for
  - (1) Looking at the surfaces of objects
  - (2) Helping in the analysis of failure of materials
  - (3) Providing detailed information about viruses

- (v) SEMs can be used to look in detail at
- (1) Microcircuits that are now constructed on a tiny silicon chip
  - (2) The normal outer surfaces of cells
  - (3) Both of these

12. (a) Write a set of eight important recommendations to a group of students from Europe who has come to spend one month's vacation in India. The suggestions may be on the lines of food, travel, transport, climatic condition etc. to make their stay comfortable and enjoyable. (16)

Or

(b) Your college has frequent traffic jams and recently there has been an accident involving a student. You have asked to study the traffic situation near your college. Write a set of eight recommendations to reduce traffic congestion in the area. (16)

13. (a) Read the following advertisement published in a newspaper dt.23.03.14 and apply for the post of Deputy Manager, Design & Development with bio-data.

Deputy Manager, Design & Development

Requirements : B.E/B.Tech. graduates with 10 – 12 years of experience in an industry.

Apply to : Human Resources Department

India Auto Limited

10, New Street, Bharath Nagar, Chennai. (16)

Or

(b) The Chief Engineer, Atomic Power Plant, Koodankulam invites application for Engineering graduates (above 65% marks) for the post of Assistant Plant Engineers. Send your application with bio-data for the same. (16)

14. (a) Imagine that your paper has been selected for presentation in a National Conference, conducted by a reputed institution. Write a letter to your Principal, stating the details of the conference and request him to grant On Duty. (16)

Or

(b) Assume that you have received a letter from an educational institution to preside over an inaugural function. Write a letter accepting the invitation. Give necessary details. (16)

15. (a) Write an essay on the Impacts of electronic media on society. (16)

Or

(b) (i) Prepare an agenda for the Valedictory Function of the Annual Sports Meet. (8)

(ii) Assume yourself as the Principal of an Institution and draft the minutes of the staff meeting conducted on Students' Academic Progress. (8)

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