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Question Paper Code: 11001

B.E./B.Tech. DEGREE EXAMINATION, DECEMBER 2013.

First Semester

Civil Engineering

01UEN101 – TECHNICAL ENGLISH - I

(Common to all branches)

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions.

PART A - (10 x 2 = 20 Marks)

1. Match the words in column A with their meanings in column B (4 x ½ = 2)

A	B
a. statutory	necessary
b. abnormality	required by written law or legislation
c. stagnant	not normal
d. indispensable	not moving

2. Fill in the blanks with correct tense forms of the verbs given in the brackets (4 x ½ = 2)
 - a. They ----- (build) this castle in 1765.
 - b. I met him as he ----- (cross) the road.
 - c. He called for the taxi after he ----- (finish) the packing.
 - d. Jane ----- (not finish) her homework yet.

3. Add suitable prefixes for the following words (4 x ½ = 2)
 - a. Friendly
 - b. Competent
 - c. Agree
 - d. Acceptable

4. Fill in the blanks with suitable prepositions (4 x ½ = 2)
 - a. The safe return ----- the astronauts was due ----- their ingenuity. They managed ----- adapt their equipment.
 - b. Our use of water has tripled ----- the last half century.

5. Write a definition for the following words in a single sentence (2 x 1 = 2)
 - a. Microscope
 - b. Modem

6. Change the following sentences into passive voice (2 x 1 = 2)
- The engineer perfected the design of the building.
 - She knows the art of pottery making.
7. Correct the mistakes in the following passage (4 x ½ = 2)
- The training of employees in a modern organization are a process far different from what it was in the past. today training is given in instituts where the latest tools are used in the training programme.
8. Give the numerical expression for the following (2 x 1 = 2)
- A play with three acts
 - A match lasting four days
9. Fill in the blanks with suitable articles (4 x ½ = 2)
- There is ----- umbrella on the table
 - night is quiet. Let's take a walk.
 - I was in ----- Japanese restaurant. ----- restaurant served good food.
10. Identify the parts of speech for the underlined words (4 x ½ = 2)
- I lost my book
 - Ram is a friendly boy in the class
 - The boy spoke fast
 - Children play in the evening

PART -- B (5 x 16 = 80 Marks)

11. Supercomputers are used to create Virtual Reality (VR). Virtual Reality is the simulation of a three-dimensional environment that appears real to the viewer. A virtual reality simulation happens in real time or as the viewer watches. The viewer can manipulate the surroundings that he or she sees during virtual reality simulation. The term virtual reality is credited to Jaron Lanier who founded a company named VPL Research.

Virtual reality evolved from flight and visual simulations and from attempts to assist human interaction with computers. The virtual reality experience needs to be credible, especially when its purpose is to enhance human creativity and productivity. To be perceived by the viewer as “real”, the environment created in virtual reality must react appropriately to the actions of the human participant. For this reason, VR must focus the viewer’s attention and thus enable the viewer to suspend disbelief about how the environment is created.

Virtual reality provides new and helpful ways for people to interact with computers, machines and other people. For example, in areas such as education and medicine, simulation using virtual reality can provide realistic experiences, such as practicing specific surgical techniques before attempting an actual operation. Additional uses for the technology of virtual reality are diverse as training in procedures, remote

exploration of planetary surfaces, and visual analysis of data, scientific visualization, and entertainment. Scientists exploring human behavior also seek to use virtual reality to investigate the human factors that affect the interactions between people and between people and machines. In turn, this research may lead to improved ways of creating virtual reality environments.

Three types of hardware are used to create a virtual reality environment. Sensors are used to detect the viewer's senses, and special hardware links the sensors and effectors to create the illusion of a "real" physical environment. In virtual reality, the hardware that links the sensors and the effectors is a supercomputer.

For many virtual reality environments, the viewer wears a head-mounted display that uses robot manipulators, various control systems, and cameras located at a remote site to achieve the realistic VR effect. When the simulation is interactive, the viewer feels immersed directly into the VR environment. The hardware that produces illusion usually is worn rather than entered, as it is in a traditional flight simulation.

- I State whether the following statements are true or false: (8X1=8)
- a. Virtual reality (VR) is nothing but a simulation of a three-dimensional environment that appears real.
 - b. VR is used extensively in fields like education and medicine.
 - c. Joan Lanier was the founder of a company named VPL Research.
 - d. VR does not provide helpful ways for people to interact with computers.
 - e. A supercomputer links the sensors and the effectors.
 - f. Research in VR may provide improved virtual reality environments.
 - g. In virtual reality, sensors are used to detect the viewer's reactions or movements.
 - h. It is necessary to ensure that the VR experience is credible, if it is used to enhance human creativity and productivity.
- II Choose the word that comes closest to mean the words or phrases as they are used in the text. (8X1=8)
- a. Infancy
 - 1. Early years 2. Late years 3. Nearing completion 4. Final stage
 - b. Credible
 - 1. Unrealistic 2. Realistic 3. Imaginative 4. Effective
 - c. Simulation
 - 1. Replication 2. Formulation 3. Regulation 4. Intimidation
 - d. Detect
 - 1. Suspect 2. Verify 3. Identify 4. Clarify
 - e. Illusion
 - 1. False impression 2. Reality 3. Perception 4. Aversion
 - f. Disbelief
 - 1. Truth 2. Credulous 3. Invincible 4. Doubt

g. Manipulate

1. Watch 2. Praise 3. Control 4. Criticize

h. Diverse

1. Varied 2. Limited 3. Enormous 4. Surplus

12. (a) Write eight instructions that are to be followed while riding/driving a two wheeler/car. (16)

Or

- (b) Write eight instructions to maintain your college campus clean and green. (16)

13. (a) Write a letter to the editor of a newspaper pointing out the infrequent bus service in your town. Highlight the problems faced by school and college students, office goers and others who depend on public transport to reach their work place. (16)

Or

- (b) As the class representative of your class, write a letter to the Director, Centre for Wind Energy Technology, Pallikaranai, Chennai, requesting him to grant permission for your class to visit the plant. Mention the purpose of the visit, date, time and other relevant details in your letter. (16)

14. (a) There has been a fire accident in the company where you are working as a safety engineer. Write a report to the Managing Director of your company highlighting the causes of the accident. Also point out the loss incurred by the company due to this mishap. Suggest suitable recommendations to avoid such accidents in the future. (16)

Or

- (b) Write a report on the sports day events that were conducted in your college recently. Highlight the achievement of students and faculty members in some of the events. (16)

15. (a) Write an essay of about 250 words on 'The need to protect the natural resources in India'. (16)

Or

- (b) Write an essay of about 250 words on 'The benefits and drawbacks of technology'. (16)