INSERT STUDENT I.D. NUMBER (PEN)

STICKER IN THIS SPACE

JANUARY 2000

PROVINCIAL EXAMINATION

MINISTRY OF EDUCATION

TECHNICAL AND PROFESSIONAL COMMUNICATIONS 12

GENERAL INSTRUCTIONS

1. Insert the stickers with your Student I.D. Number (PEN) in the allotted spaces above and on the **back** cover of this booklet. **Under no circumstance is your name or identification, other than your Student I.D. Number, to appear on this booklet.**

2. Ensure that in addition to this examination booklet, you have an **Examination Response Form**. Follow the directions on the front of the Response Form.

3. **Disqualification** from the examination will result if you bring books, paper, notes or unauthorized electronic devices into the examination room.

4. All multiple-choice answers must be entered on the Response Form using an **HB pencil**. Multiple-choice answers entered in this examination booklet will **not** be marked.

5. For each of the written-response questions, write your answer in **ink** in the space provided in this booklet.

6. When instructed to open this booklet, **check the numbering of the pages** to ensure that they are numbered in sequence from page one to the last page, which is identified by

   END OF EXAMINATION.

7. At the end of the examination, place your Response Form inside the front cover of this booklet and return the booklet and your Response Form to the supervisor.

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TECHNICAL AND PROFESSIONAL COMMUNICATIONS 12
PROVINCIAL EXAMINATION

		Value	Suggested Time
1. This examination consists of **five** parts:			
PART A:	Communication Concepts	10	8
PART B:	Reading Comprehension	18	25
PART C:	Editing	7	7
PART D:	Design	15	20
PART E:	Case Study	35	60
	Total:	**85 marks**	**120 minutes**

2. A hand-held calculator may be used for this examination; however, computers, calculators with a QWERTY keyboard, and electronic writing pads will not be allowed. Students must not bring any external devices to support calculators, such as manuals, printed or electronic cards, printers, memory expansion chips or cards, or external keyboards. Students may have more than one calculator available during the examination. Calculators may not be shared and must not have the ability to either transmit or receive electronic signals. Other electronic devices, including dictionaries and pagers, are **not** permitted in the examination room.

3. You may use a ruler or geometry set to create any graphics required for the Design and Case Study parts.

4. Ensure that you use language and content appropriate to the purpose and audience of this examination. Failure to comply may result in your paper being awarded a zero.

5. This examination is designed to be completed in **two hours**. *Students may, however, take up to 30 minutes of additional time to finish*.

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PART A: COMMUNICATION CONCEPTS

Value: 10 marks **Suggested Time: 8 minutes**

INSTRUCTIONS: For each multiple-choice question, select the **best** answer and record your choice on the Response Form provided. Using an HB pencil, completely fill in the circle that has the letter corresponding to your answer.

Use the following text to answer questions 1 and 2.

Some estimates place the number of users of the Internet between 95 and 150 million people worldwide. It is estimated that this number will reach 400 million by 2005 (Lang 103–104).

1. The purpose of the citation above is to acknowledge

   A. a quotation.
   B. the use of statistics.
   C. an ambivalent statement.
   D. the source of a stated idea.

2. Which of the following is the **correct** bibliographical entry for the citation above?

   A. "Internet Users." Lang, Edward M. *Journal of E-Commerce* 17.
   B. Edward M. Lang, "Internet Users." *Journal of E-Commerce* 17 (1998): 103–104.
   C. Lang, Edward M. "Internet Users." *Journal of E-Commerce* 17 (1998): 103–104.
   D. Lang, Edward M. *Internet Users*. "Journal of E-Commerce" 17 (1998): 103–104.

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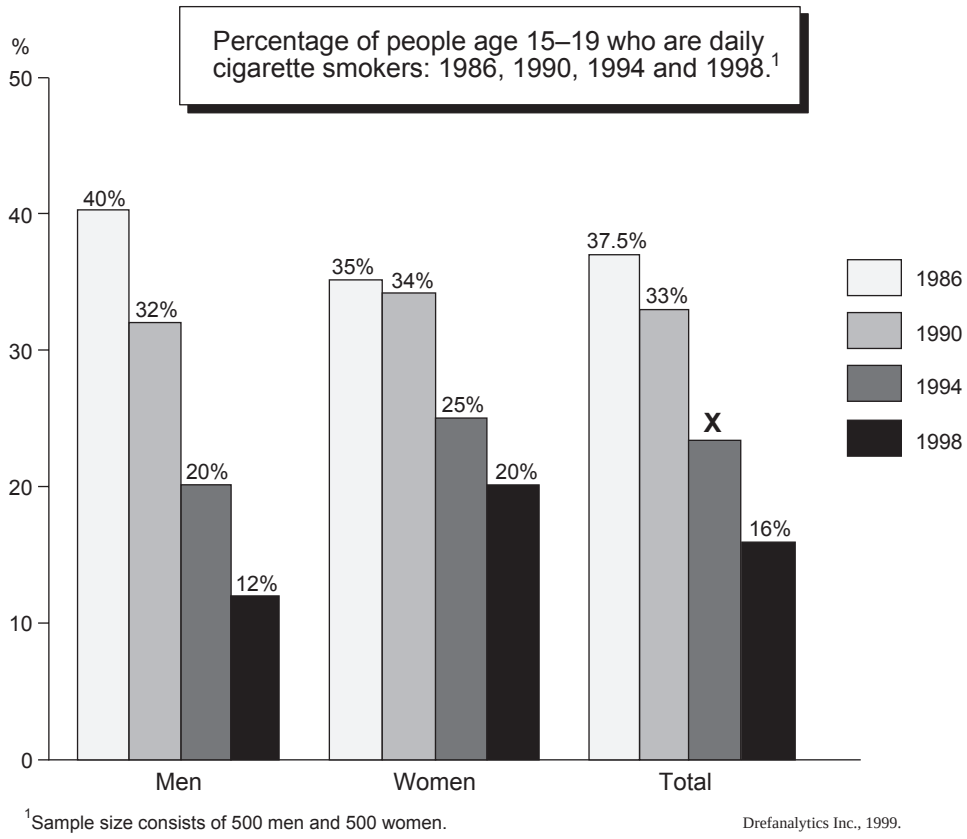
3. Which of the following organizational strategies would be the most effective for the trouble-shooting section of a software user's manual?

   A. spatial
   B. sequential
   C. cause and effect
   D. general to specific

OVER

Use the following graph to answer questions 4 and 5.



4. For what gender and in which time period did the most significant change in the daily number of cigarette smokers occur?

   A. among men, 1990–1994
   B. among men, 1994–1998
   C. among women, 1990–1994
   D. among women, 1994–1998

5. What was the **total** percentage of daily cigarette smokers in 1994?

   A. 20.5%
   B. 22.5%
   C. 23.0%
   D. 24.0%

Use the following advertisement to answer questions 6 and 7.

Dypers

a product of ***Sleep Comfort***

Pediatricians at Folkways Hospital recommend Dypers to new mothers.

Parents who really care about the comfort of their children insist on our product because **Dypers** are:

- less bulky
- long-lasting
- hot water washable
- 50% more absorbent
- available in eight great fabrics
- soft next to your baby's skin
- easily adjustable due to the patented *nubornvelcro* closure system

6. In the advertisement, the unstated implication is that

   A. Dypers last longer.
   B. Dypers are thinner and more comfortable.
   C. pediatricians are promoting the use of Dypers to new mothers.
   D. you are neglecting your child's well-being if you don't use Dypers.

7. The advertisement makes use of all of the following **except**

   A. expert opinion.
   B. product warranty.
   C. manipulative language.
   D. product line advantages.

OVER

8. Which of the following is the **best** example of unethical behavior?

   A. failure to put litter into a street corner garbage basket
   B. failure to obey the 30 km/h speed limit in a school zone
   C. failure to credit a person whose written ideas were cited
   D. failure to offer your seat to an elderly person on a crowded bus

9. E-mail on a particular topic that is sent to subscribers is called

   A. a link.
   B. a listserv.
   C. a chat line.
   D. a bulletin board.

10. Which of the following is a valid web site address?

   A. ftp://www.software.ca
   B. http:\\www.bcnews.com
   C. http://www.macinfo.com
   D. http@www.whalewatching.com

PART B: READING COMPREHENSION

Value: 18 marks **Suggested Time: 25 minutes**

INSTRUCTIONS: Read the following article carefully. For questions 11 to 18, select the **best** answer and record your choice on the Response Form provided.

Composting Leaves

by Mark Kane

1 Composting the fall crop of leaves yields brown gold in spring. Dry, brittle leaves turn into dark, rich humus, a much-decomposed form of organic matter with strongly beneficial effects on the soil. Humus makes soil more open by binding soil particles together, and increases the soil's capacity to hold moisture. Humus also releases plant nutrients gradually for years. When you use leaf compost regularly, you see the difference in tougher more vigorous plants.

2 Composting leaves is straightforward. If you choose to let nature do most of the work, you can just pile leaves in an enclosure and come back in a few years to collect the finished compost. If you choose to hasten leaf composting, you must ensure that the pile always has adequate air and moisture, requirements that oblige you to rebuild the pile periodically and to control its moisture. That's all there is to it. Many gardeners have heard that leaves are balky and will not compost without special ingredients and techniques. Not so.

3 Recycling leaves is also good ecology. When I see black plastic bags of leaves lined up curbside each fall, waiting for a ride to the municipal dump, I can't help but dream of the day when a compost bin full of leaves will be as common a part of every yard as a lawn.

Composting Basics

4 Composting is a natural process, helped along by the gardener. In nature, a host of soil creatures specialize in breaking down the annual litter of fallen leaves, stalks, stems, twigs and branches. When you heap up leaves to make a compost pile, you spread a banquet that attracts and feeds many of these creatures, particularly bacteria and fungi. As long as they are surrounded by air, moisture and food, the microorganisms multiply, and the leaves break down rapidly.

5 An actively composting pile heats up, as the metabolism of billions of microorganisms releases warmth faster than it can escape the pile. Its coarse texture and multitude of dead air spaces make the pile an effective insulator. At the centre of the pile, for short periods, the temperature can reach 71°C. On a frosty morning in fall, you can pull back the top layer of leaves and watch steam rise. I've heard gardeners who are new to composting ask if a compost pile can catch fire. The answer is no. A compost pile is far too moist to ignite at the relatively low temperatures it can achieve. What's more, the heat of a compost pile is self-regulating. As the temperature rises, microorganisms die in droves because the supply of air is dwindling and because they cannot tolerate the heat. At 66°C to 71°C, the remaining population is small and incapable of driving the temperature higher. As heat escapes the pile, the temperature peaks and then falls.

Leaf Compost

6 When is leaf compost finished? Composting leaves develop the insubstantial texture of wet newsprint and a uniform dark colour—what were once dull-brown leathery oak leaves and red papery maple leaves are now indistinguishable.

7 You can use leaf pile before it becomes finished compost. Some springs, I lift layers intact from the pile and place them in overlapping patterns for mulch. Few weeds can push through a sheaf of matted leaves. By fall, the leaves have broken down nicely, thanks mainly to earthworms, which burrow in the seams.

8 I use finished leaf compost several ways. The texture and soil-building properties of finished compost make it especially well suited for enriching the soil when you break new ground, for maintaining soil fertility in the vegetable garden, and for mulching. Because finished compost is soft and crumbly, I can spread an inch or two over the vegetable garden and spade it in uniformly with very little effort. Applied each spring, the compost can dramatically increase the tilth and moisture-holding capacity of the soil in a few years. Each application also releases nutrients slowly for years.

9 Leaf compost makes wonderful mulch. It spreads nicely and presents a smooth, uniform surface. The crumbly consistency of leaf compost suits it for delicate mulching. I can rub it between my palms over a small-leaved ground cover such as vinca and let fine pieces sift between the plants. If you try that with uncomposted leaves, you smother the ground cover.

OVER

10 Making leaf compost is rewarding work. It's good for the garden, and good for the soul—you are recycling energy and nutrients, as nature intended, and sparing your local dump. Leaf compost also gives you a new perspective on trees. They cease to be shade-casting problems that make it hard to garden in parts of your yard. They become allies instead, generous friends who make a gift of their hard-won bounty to enrich your garden.

Is There a Secret to Composting Leaves?

by Mark Trela

11 Last year, I set out to test the lore that leaves require special ingredients and techniques to become good compost. In side-by-side compost piles, I trialed four commonly heard recommendations: shred the leaves before building the compost pile; add limestone to balance the acidity of the leaves; add nitrogen to the leaves to encourage quick, complete composting; add a "starter" to seed the leaf pile with microorganisms that decompose organic matter. I have training in biodynamics, a gardening system that uses preparations made from plants to improve plant growth, so I used a biodynamic compost "starter," hoping it would distinguish itself. For a benchmark, I also built a fifth compost pile of unshredded leaves, with nothing added.

12 With the help from several assistants, I made conditions among the piles as alike as possible. We constructed identical 4-ft. square wire bins. We mixed the leaves before filling the bins to make sure the piles were uniform, and watered them equally. Once the piles had begun to compost, we turned them at the same time, every four days at first, then every seven days, then every two weeks.

The Leaves Break Down

13 Composting altered the piles dramatically. For one thing, the pH of all the piles went from acid to alkaline. We tested the pH of each pile as we made it and got readings that ranged from pH 5.2 to pH 5.6. I suspect that the variation was not in the compost piles but in our eyes—we used litmus paper that changes colour to indicate pH, and we found distinguishing the colours difficult.

14 In spring, when we tested the finished compost, the pH readings had risen more than two full points. All the piles were mildly alkaline, ranging from pH 7.6 to pH 7.9. We expected the limestone in one pile to raise the pH of the finished compost. Instead, the pH was 7.7, right on the average for all the piles. I think the pH results show that, contrary to gardening lore, adding composted leaves to the soils will not make it acid.

15 The leaves changed character in other ways during composting. They turned a nearly uniform dark brown. They lost their toughness and grew soft, and their smell changed, too. After six turnings, they gave off a sweet, earthy aroma that I found very heady—it's the smell of healthy soil.

16 I believe that good compost attracts earthworms, so we counted the critters painstakingly from each pile. The numbers varied somewhat, but not enough to make one pile the winner.

The Finished Compost

17 The experiment ended in a five-way tie. As you can see in the table below, the piles produced virtually identical finished compost. The pH varied only slightly among the piles. So did the percentage of organic matter—which shows how much of the original leaf matter has not broken down into minerals. I have to admit that my biodynamic "starter" made no real difference to the results. Nor did adding roughly 3 lb. of blood meal to one pile for additional nitrogen, and 50 lb. of limestone to another pile.

18 What did I learn from the experiment? Above all, that you can make good finished compost using leaves alone, and that the leaves can be shredded or unshredded.

Pile	Initial pH	Final pH	% Organic matter	Earthworms per pile
Shredded leaves				
alone	5.6	7.6	65	26
with starter	5.4	7.9	71	29
with limestone	5.6	7.7	61	22
with blood meal	5.7	7.8	63	19
Unshredded leaves	5.2	7.6	65	18

11. In paragraph 1, the author catches the reader's attention by

    A. posing a problem.
    B. dispelling a myth.
    C. using descriptive language.
    D. providing a personal anecdote.

12. In the article, "humus" is defined as

    A. dry leaves.
    B. damp, dark soil.
    C. moistened organic matter.
    D. decomposed organic matter.

13. In paragraph 3, the author's tone is

    A. objective.
    B. accepting.
    C. emotional.
    D. indifferent.

14. A composting pile of leaves becomes warm because of the

    A. slow burning of materials.
    B. heavy weight of the contents.
    C. mass dying of microorganisms.
    D. metabolism of microorganisms.

15. According to the article, a gardener can use

    A. leaf pile for mulch.
    B. only finished compost.
    C. only fragmented leaf compost.
    D. uncomposted leaves on ground cover.

16. Which phrase **best** summarizes the main ideas of paragraphs 6 to 9?

    A. leaf compost makes good mulch
    B. leaf composting is rewarding work
    C. there are several ways to use leaf compost
    D. three ways to tell when leaf compost is finished

OVER

17. Relative to the initial pH of unshredded leaves, the change in the final pH was **greatest** for shredded leaves

    A. alone.
    B. with starter.
    C. with limestone.
    D. with blood meal.

18. What does the author conclude about the question, “Is There a Secret to Composting Leaves?”

    A. It’s better to use unshredded, rather than shredded leaves.
    B. Shredded leaves with starter produce significantly more compost.
    C. Shredded leaves with blood meal produce significantly more compost.
    D. There is no significant difference between one composting method and another.

INSTRUCTIONS: Answer questions 1 to 3 based on the article *Composting Leaves*. Complete sentences are not required.

1. From the article, name **two** specific kinds of "soil creatures," and state **two** of the roles they play in composting. **(4 marks)**

   Creature 1: _____

   Creature 2: _____

   Role 1: _____

   _____

   Role 2: _____

   _____

2. From the "**Leaf Compost**" section, name **two** uses of leaf compost. **(2 marks)**

   Use 1: _____

   _____

   Use 2: _____

   _____

3. List **four** efforts the author made to ensure the validity of his test's conclusion. **(4 marks)**

   Effort 1: _____

   _____

   Effort 2: _____

   _____

   Effort 3: _____

   _____

   Effort 4: _____

   _____

OVER

PART C: EDITING

Value: 7 marks **Suggested Time: 7 minutes**

INSTRUCTIONS: You are in charge of making travel arrangements for an upcoming conference. You have prepared the following e-mail to send to one of the delegates. Before sending the message you will need to edit it for clarity and consistency.

For questions 19 to 25, select the **best** answer and record your choice on the Response Form provided.

To: bsmith@wilsonlane.com
From: dellerby@educom.bc.ca
Subject: Conference Travel Arrangements and Programming
Cc:
Bcc:
X-Attachments:

1 In making your travel arrangements to attend the "Engineering in the 21st Century" conference next month, please consider the following information before you choose your accommodation.

2 As most of the activities will be held at conference centres in Whistler, I reccommend that you stay there. Most Whistler hotels offer rooms starting at $225 per night. Although it may be less expensive to stay in Vancouver, you face a two-hour drive each way along an often treacherous mountain highway. Staying in Vancouver will also obligate you to rent a car for the four days of the conference.

3 As outlined in your conference booklet, we will be holding sessions from 8:30 a.m. to 4:30 p.m. on November 24–28, in addition, there will be scheduled evening activities to allow people to "meet-and-greet" on two nights, as well as a final group dinner on the last night.

4 I understand that you will be making a presentation to recently qualified engineers, please let me know if you require any specific equipment for your workshop.

5 I look forward to meeting you next month.

19. The first paragraph should

A. remain as written.
B. include the location of the conference.
C. include the specific date of the conference.
D. have the conference name deleted as redundant.

20. Which part of the first sentence in paragraph 2 contains an error?

A. As most of the activities
B. will be held at
C. conference centres in Whistler,
D. I reccommend that you stay there.

21. Which of the following **best** replaces the underlined word in paragraph 2?

A. force
B. insist
C. require
D. demand

22. The phrase “meet-and-greet” in paragraph 3 is in quotation marks because it is

A. ironic.
B. technical.
C. colloquial.
D. metaphorical.

23. The most evident weakness of paragraph 3 is that it

A. contains faulty parallelism.
B. contains a run-on sentence.
C. is written in the second person.
D. involves a shift in point of view.

24. What is the correct spelling and punctuation of the underlined part of the sentence in paragraph 4?

A. presentation to recently qualified engineers: please let me know
B. presentation to recently qualafied engineers; please let me know
C. presentation to recently qualified engineers. Please let me know
D. presentation to recently qualafied engineers. Please let me know

25. The overall purpose of this e-mail is to

A. inform.
B. caution.
C. dissuade.
D. persuade.

OVER

Organization and Planning
(this will not be marked)

PART D: DESIGN

Value: 15 marks **Suggested Time: 20 minutes**

INSTRUCTIONS: Read the situation below and create an appropriate product (complete with title). You may wish to use visual representation to enhance the message.

- underline words to indicate *italics*
- (circle) words to indicate **bold**
- 

use a box to indicate the look and placement of a graphic

4. You are a student Fire Warden at Cloverfield Secondary School. Create the necessary sign that will alert students and staff to the three different kinds of portable fire extinguishers and to their manual operation. The sign is intended to be posted beside all fire extinguishers in the school. **(15 marks)**

   The vice-principal has provided you with the following information from the school's *Safety Operations Manual*.

   SAFETY OPERATIONS MANUAL, PAGE 12

   Section No. 1.3.1 Extinguisher Types

   There are three types of portable extinguishers in use: **Type A** extinguishers are used to extinguish ordinary combustibles, such as paper, plastics, clothing and wood; **Type B** extinguishers are used to extinguish flammable liquids, such as oil, gasoline, grease and oil-based paint; and **Type C** extinguishers are used to extinguish electrical equipment fires located around wiring, circuit breakers, electrical machinery and appliances.

   Note: It is extremely hazardous to use a Type A extinguisher on an oil or electrical fire.

   Section No. 1.3.2 Extinguisher Operation

   In the case of a fire, activate the extinguisher by pulling the pin, which will release a locking mechanism at the top of the extinguisher. Aim the extinguisher at the base of the fire, squeeze the handle of the extinguisher to release the extinguishing agent, and spray the base of the fire area in a sweeping action until the fire is out.

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Exercise care when tearing along perforations.

OVER

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FINISHED WORK

OVER

Organization and Planning
(this will not be marked)

PART E: CASE STUDY

Value: 35 marks (Content: 20 marks; Visual Design: 15 marks) **Suggested Time: 60 minutes**

INSTRUCTIONS: Read the scenario below and write a standard business memorandum. For ease of navigation, it is expected that you will include supporting visuals. For emphasis in your work

- underline words to indicate *italics*,
- (circle) words to indicate **bold**.

5. **Scenario:**

You are Leslie Reed, a grade 12 student at Greenwood Secondary School. On March 24, 2000, your school will be hosting a district-wide Professional Development Conference for 250 teachers. The principal, Ms. Sandy Robinson, has asked the Foods 12 class if they would be interested in catering the conference. Your teacher, Mr. Jones, and the class are excited by the challenge, but a detailed proposal must be sent to the principal by February 20, 2000.

Registration and coffee will be from 8:00–8:30 a.m., followed by a keynote speaker from 8:30–9:30. After a 15-minute break, participants will attend smaller subject-specific sessions until lunch, which will be from 11:45–12:45. There will also be an afternoon coffee break from 2:15–2:30.

Your class has concluded that they should supply one cup of coffee and one snack for each participant at registration, during each break, and with lunch. Coffee urns, which yield 65 cups, can be rented from Vachon Distributors for $20.00 each per day, and you will require four. The cost of the coffee for each full urn will be $6.00. Participants will be encouraged to bring their own mugs, but the class is also planning to purchase 500 disposable cups at a cost of $50.00. Cream, sugar, and stir-sticks will cost an additional $125.00 in total. Because some participants may not drink coffee, individual tetra-packs of juice will also be available. The class has estimated that 20 dozen packs will be needed for the conference; a one-dozen pack will cost $7.00. Snacks will consist of either one muffin or two cookies for each person; these will be prepared and frozen two weeks before the conference. Your teacher calculated that baking 10 dozen muffins and 30 dozen cookies for each break should be adequate. The total cost of baking ingredients is estimated at $300.00.

Lunch will consist of either cheese or ham quiche, along with a tossed green salad and sourdough buns. The individual quiches will be assembled and baked two days prior to the conference and refrigerated. On the day of the conference, they will only have to be reheated; the Foods 12 class will then be able to assemble the tossed salad during the morning to ensure optimum freshness. The cost of the ingredients for the quiches will be $3.00 per person. Salad ingredients are estimated to cost another $1.00 per person, and 21 dozen buns will be purchased at a cost of $2.00 per dozen. Lunch ingredients will also be supplied by Vachon Distributors. You will need to place an order with them two to three weeks before the conference begins.

Your teacher is pleased with the research done to date, and feels confident that the Foods 12 class can provide a quality service at a reasonable price. You must send this information to your principal in order to obtain approval for your plans. In order to purchase ingredients and organize the early baking, you would appreciate a reply by March 3, 2000.

Task:

Because you are also a TPC 12 student, Mr. Jones has asked you to write the proposal to the principal on behalf of the Foods 12 class. Describe how you intend to deliver the service and indicate what participants can expect. Include a schedule of snacks and meals along with the expected costs.

You may detach this page for convenient reference.
Exercise care when tearing along perforations.

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Organization and Planning
(this will not be marked)

OVER

FINISHED WORK

FINISHED WORK

OVER

FINISHED WORK

FINISHED WORK

	1st	2nd	Subtotal
Content			
Visual Design			

END OF EXAMINATION

ACKNOWLEDGEMENTS

Kane, Mark. "Composting Leaves: Recycling Fall's Bounty to Improve Your Soil." *Fine Gardening*. Nov/Dec 1990: 46–48.

Trela, Mark. "Is There a Secret to Composting Leaves?" *Fine Gardening.* Nov/Dec 1990: 49.

Question 1:

1. ____.__

(4)

Question 2:

2. ____.__

(2)

Question 3:

3. ____.__

(4)

Question 4:

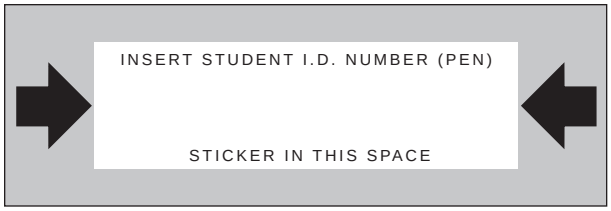
4. ____.__

(15)

Question 5:

5. ____.__

(35)



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TECHNICAL AND PROFESSIONAL COMMUNICATIONS 12

January 2000

Course Code = TPC

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