

# COLLECTION SYSTEMS OPERATOR TEST PREPERATION CLASS

GRADES 3 & 4

# *CWEA TCP COLLECTION SYSTEM MAINTENANCE TEST PREPARATION CLASS*

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**YOU CAN GIVE A PERSON  
KNOWLEDGE, BUT YOU CAN'T  
MAKE THEM THINK.  
SOME PEOPLE WANT TO  
REMAIN FOOLS, ONLY  
BECAUSE THE TRUTH  
REQUIRES CHANGE.**

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"There's no magic formula  
for **great company culture**.  
The key is just to **treat** your  
staff how you would like to  
be **treated**"


- *Richard Branson*



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**1. A pump station has three constant speed pumps with a field measure horsepower of the pumps of 73(pump #1), 78(pump #2) and 71 (pump #3). By changing to new, more efficient pumps, the horsepower can be reduced to 65 horsepower per pump and can maintain the same flow rate.**

**Total cost of conversion:     \$64,000**

**Power costs                                 \$0.63 cents/KwH**

**Pump station Average flow             10.5 mgd**

**Hour Meter Reading**

---

	<u>Beginning of year</u>	<u>End of year</u>
Pump 1	110,356	115,293
Pump 2	24,224	25,031
Pump 3	38,331	39,622

**Given the information above, determine the annual power saving in dollars, if new pumps are installed:**

- a. \$21,491.01 per year
- b. \$27,135.62 Per year
- c. 38,419.59 Per year
- d. \$24,205.35 Per year

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**2. “Span and control” relates to the number of subordinates who can be supervised effectively by one supervisor. At the top level of organizations, what is this number?**

1. Two to four
2. Three to five
3. Six to eight
4. Nine to eleven



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3. If sue were unable to work her shift on Day #8, who else could be called in if staff can only work extra hours after completion of a shift, and cannot work on a regularly scheduled day off? (X=regular day off; D=Day Shift/8:00am to 4:00Pm/8hour shift; S=Swing Sift 4:00pm to 9:00pm/5 hour shift

Day	May	Sue	Jim	Bob	Tim	June	Pam
1	X	S	S	D	D	D	X
2	X	X	S	S	D	D	D
3	D	X	X	S	S	D	D
4	D	D	X	X	S	S	D
5	D	D	D	X	X	S	S
6	S	D	D	D	X	X	S
7	S	S	D	D	D	X	X
8	X	S	S	D	D	D	X
9	X	X	S	S	D	D	D
10	D	X	X	S	S	D	D
11	D	D	X	X	S	S	D
12	D	D	D	X	X	S	S
13	S	D	D	D	X	X	S
14	S	S	D	D	D	X	X

- Pam, May, June
- Jim, Bob, Tim or June
- May, Bob or Jim
- Bob, Tim or June

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5	D	D	D	X	X	S	S
6	S	D	D	D	X	X	S
7	S	S	D	D	D	X	X
8	X	S	S	D	D	D	X
9	X	X	S	S	D	D	D
10	D	X	X	S	S	D	D
11	D	D	X	X	S	S	D
12	D	D	D	X	X	S	S
13	S	D	D	D	X	X	S
14	S	S	D	D	D	X	X

- a. Pam, May, June
- b. Jim, Bob, Tim or June
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#### **4. What is the best approach to take when handling on- the- job conflicts?**

- a. Remain friendly to an adversary while criticizing him to others
- b. Make your point aggressively and overwhelm other with your positions.
- c. Communicate clearly without attacking the other person or personalizing the conflict.
- d. Deny the existence of a problem and hope it goes away.

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**5. In order to estimate the amount of time it will take for a work unit to complete a given job, it will be necessary for the supervisor to?**

- a. Estimate the cost of the materials for the job.
- b. Determine the types of assignments that have been given to other work units.
- c. Estimate the time required for routine and non-routine work activities.
- d. Determine the salary levels of the staff to be assigned to the job.

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**6. As a manager, which factors will help you the most to predict how much money should be set aside for a repair/replacement fund for your utility?**

- a. Brand of equipment desired, original purchase price of existing equipment, and life expectancy of the equipment.
- b. Equipment required, life expectancy of the equipment and the replacement cost.
- c. Work hours saved with new equipment, trade-in value of existing equipment, and the life expectancy of the equipment.
- d. Equipment required, life expectancy of the equipment, and availability of equipment.



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## **7. Annual operating budgets should be based mainly on?**

- a. The amount of money available
- b. Last year's activities and cost
- c. Anticipated changes and costs
- d. Equipment additions and replacements.

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## 8. One of the primary goals of progressive discipline is to?

- a. Ensure that disciplinary action be taken against each employee, regardless of the severity or frequency of the infraction.
- b. Have managers and supervisors take a strong stance with their workers and let them know that there is no room for error.
- c. Eliminate disciplinary problems in advance by letting employees know what offences will be punished and what action will be taken.
- d. Allow manager to take adverse action against employees without need for preventive actions being taken.

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**9. The fundamental elements in *Management by objectives* include?**

- a. Control, competence and climate.
- b. Staging, action and evaluation
- c. Planning, organizing, implementing and follow-up
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## **10. When would purchasing equipment for collections system maintenance be most advantageous?**

- a. When the equipment is standard to the industry, used frequently, will become obsolete quickly, and represents a capital investment outside the scope of the available budget.
- b. When the equipment is standard to the industry, used seasonally, will become obsolete quickly, and represents a capital investment with the scope of the available budget.
- c. When the equipment is standard to the industry, used frequently, has a long life span and represents a capital investment within the scope of the available budget.
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**11. According to the scheduling chart below. If the person scheduled to work shift #2 on Tuesday were unable to work, the remaining employees scheduled for the day would include? (X=regular day off; 2=work shift #2/8am to 4pm/8 hour shift; 3 = work shift #3/1pm to 9pm/8 hour shift.)**

Employee	Sun	Mon	Tue	Wed	Thu	Fri	Sat
A	X	X	2	2	2	2	2
B	3	X	X	3	3	3	3
C	2	2	X	X	2	2	2
D	3	3	3	X	X	3	3
E	3	3	3	3	3	X	X
F	2	2	2	2	X	X	2
G	X	2	2	2	2	2	X
H	X	X	X	X	X	2	2

- Two people working shift #2 and three people working shift #3
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E	3	3	3	3	3	X	X
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## 12. Debt service is defined as?

- a. The total amount of interest on debts required to be paid annually.
- b. The total amount of debt owed by the agency.
- c. The ratio of total debt in operating costs.
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## 14. What can and cannot be delegated?

- a. All simple tasks can be delegated; complex tasks cannot be delegated
- b. Responsibility and accountability can be delegated; achievement of goals cannot be delegated
- c. Tasks and accountability for results can be delegated; responsibility and authority cannot be delegated.
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**15. The difference between a meeting that accomplishes its purpose and one that ends in uncertainty can be summed up in two words?**

a. Planning and leadership

b. Listening and discussion

c. Participation and leadership

d. Sharing and organization

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**16. Ongoing activities that flow from the department's mission statement and directly accomplish goals and objectives articulated by that statement are best defined as?**

- a. Programs
- b. Projects
- c. Divisions
- d. Branches

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**17. Which one of the following organizational development interventions is used by facilitators when work units are in competition and do not trust one another?**

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## **18. Which item would not be considered a major component of a written Overflow Emergency Response Plan for the Director of Public Works?**

- a. Safety issues-Health concerns, traffic concerns, equipment operations, ect.
- b. Responsibilities- Reports and record keeping, notification of regulatory agencies, other divisions and officials, press and general public.
- c. General- Causes of most spills, frequency of spills, definitions: major/minor spills, response time goals
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**19. Which of the following would be classified as a supervisory aid for effective time management?**

- a. Purchase orders
- b. Employee evaluations
- c. Weekly planning sheet
- d. Annual budget reports

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**20. A lecture format for job training would be a preferred instructional method over on-the-job training for which one of the following?**

- a. The trainee group has learned the basic job principles through self-paced instruction and hands – on experience.
- b. The content of the training requires presentation of new ideas and knowledge rather than development of skills in using procedures.
- c. The materials for the training include diagrams and printed instructions rather than written policy and procedure manuals.
- d. The trainee group has little experience or exposure to the skills being presented.

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**21. Decision making by group consensus has both advantages and disadvantages. Which of the following is a disadvantage of consensus decision making?**

- a. The usefulness of the process for making complex decisions
- b. The willingness of participants to implement decisions
- c. The quality and acceptance of decisions made
- d. The time requirements to reach decisions

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## **22. If you suspect that an employee is under the influence of alcohol and /or drugs while at work, you should?**

- a. Ignore the employee and discuss this at a time when they are not under the influence
- b. Tell the employee to drive home and charge the rest of the day to sick leave
- c. Call the employee aside and discuss the behaviors that have led you to suspect the problem.
- d. Fire the employee on the spot for being under the influence at work.



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## **23. The primary responsibility of a departmental supervisor is to?**

- a. See that employees accomplish their jobs safely and effectively.
- b. Step in whenever needed.
- c. Be able to perform all of the jobs in the department.
- d. Report to upper management whenever anything happens in the department.

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**24. Which is the best solution to a problem in which a new employee after extensive training, continues to make major errors on the job, including safety related errors and sloppy work.**

- a. Take action to remove the employee from the job.
- b. Ask the employee to resign but don't take any action to remove him/her
- c. Wait and watch. Hope that the situation will get better.
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**25. During an employment interview an applicant begins to voluntarily give you information that you cannot legally ask for. What should you do?**

- a. Nothing. Once an applicant begins to voluntarily give this kind of information it is part of the official record.
- b. Re-direct the conversation away from these topics and focus on your prepared questions
- c. Politely terminate the interview, do not consider this applicant for employment, and document that they divulged inappropriate information during the interview.
- d. Politely inform the applicant that such information is not acceptable during an interview, but that they may include such information in a post interview follow up letter.

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**26. As a supervisor of a group, how should you discipline a member of a work group who refuse to work as a team member which results in an ineffective team with low productivity?**

- a. Assign him/her to menial tasks that do not require group cooperation to complete. Redefine the team to exclude him/her and reassign work within the team to ensure that productivity is maintained.
- b. Assign him/her to tasks that require cooperation with other members of the group. Counsel him/her on teamwork and provide a supportive work environment.
- c. The group's assistance should be sought to pressure him/her into functioning as a team member. As supervisor, you will not have to directly take action; your existing team will force him/her to change in a subtle manner.
- d. The group will have to pick up the slack and ensure that productivity is maintained while you take disciplinary action against this employee. Ideally, you should work to replace him/her with someone who can work under your direction



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**27. When are yearly performance goals for the upcoming review period projected?**

- a. During the annual performance review meeting
- b. Just prior to the annual performance review meeting
- c. After the annual performance review meeting
- d. When it is most convenient for the employee and management.

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**28. Before taking a specific adverse action against an employee, such as dismissal for continual unauthorized absences, a supervisor should have done all of the following except?**

- a. Formally warned the employee of the consequences of his/her continued absences.
- b. Consider the employees past disciplinary and attendance records.
- c. Discussed the situation with the employee and counseled him/her on the continued absences.
- d. Offered alternative work schedules or arrangements to the employee to correct the problem.

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**29. With regard to confined space programs, a review of the permit space program is required using the canceled permits within 1 year after each entry to?**

- a. Document the time each employee spent in a confined space
- b. Ensure that employees have received proper training.
- c. Revise the program as necessary, and to ensure that employees participating in entry operation are protected from permit space hazards.
  - a. Ensure that pre-entry preparations have been completed.

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## **30. Effective delegation from a manager to a subordinate requires?**

- a. The manager to relinquish all responsibility to the subordinate to ensure full accountability.
- b. The employee to have the power and authority to perform the task.
- c. The manager to retain authority for the task thus minimizing the possibility of something going wrong.
- d. Giving the employee the discretion to expand his or her authority as required by the task.



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**31. Which one of the following actions should be taken by a supervisor who suspects that an employee has a personal problem?**

- a. Ignore the situation and hope that the problem resolves itself.
- b. Confront the employee and offer the suspected personal problem as the reason for the performance deterioration.
- c. Enroll the employee in an employee assistance program
- d. Focus on the performance deterioration while encouraging the employee to talk out and identify the basic cause of the problem.

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**32. When considering any personnel action, it is most important to ensure that it is?**

- a. Related to job performance
- b. Considered fair by the employee
- c. Accepted by the management and union
- d. Accepted by the employees.

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**33. Two types of budgets for a department are an operating budget and?**

- a. An income budget.
- b. A capital budget.
- c. An equipment budget.
- d. A personnel budget.

**33. Two types of budgets for a department are an operating budget and?**

- a. An income budget.
- b. A capital budget.**
- c. An equipment budget.
- d. A personnel budget.

**34. What skill is not needed to manage people?**

- a. Conceptual skills.
- b. Human relations skills.
- c. Administrative skills.
- d. Technical skills.



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**35. A newspaper reporter calls you, the Collections System Manager, about a sensitive issue such as a sewer blockage and overflow, you should?**

- a. Ask to see the story before its printed to check for accuracy and help your agency prepare for the possible impact of the story.
- b. Be as cooperative as possible clarifying concepts that you do not agree with by restating and explaining or refuting them.
- c. Refuse to speak to the reporter if he or she is rude or aggressive
- d. Speak in personal terms trying to not use technical language.

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- d. Speak in personal terms trying to not use technical language.**

**36. Due to an excessive amount of discrepancies in records, it has been necessary for the supervisor and employee to have a face-to-face meeting. The supervisor should?**

- a. Conduct the meeting so that other employees can hear the conversation and learn from it.
- b. Threaten the employee with serious consequences, even if these cannot be carried out to ensure immediate compliance.
- c. Clearly state the problem and the expected level of performance to the employee.
- d. Discuss not only job performance, but also characteristics that are annoying so the employee may correct those too.

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**37. Coordination and cooperation among staff is most likely in an organizational setting which includes?**

- a. High pay and benefits
- b. Good policies such as fair and complete evaluations.
- c. Opportunities to participate in decision making.
- d. A militaristic hierarchy.

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**38. The most important factor to be considered when planning an effective maintenance schedule is?**

- a. The effectiveness of the proposed plan.
- b. Knowledge of the collections system.
- c. Knowledge of the procedures and equipment.
- d. Know your crew's capabilities.



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**39. A new policy has been adopted by your department that affects all of your subordinates and restricts their choices regarding work assignments. As the supervisor, how should this message be conveyed?**

- a. Make the announcement in a group setting and provide a written statement of the policy change for each person.
- b. Call in individual workers and explain the new policy to each person one at a time.
- c. Ask a lead-worker to pass along the new policy information for you.
- d. Post the new policy statement in a location where everyone can read it.

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**40. For the past five Monday morning, one of your employees has come to work late. She has always telephoned with an excuse. This Monday morning, she is late again and this time, her excuse is that she overslept. You should?**

- a. Wait until the end of the work day and then call her aside and fire her for excessive absences.
- b. Bring up the issue of tardiness at the next staff meeting without being specific about who has been late.
- c. Cut her pay for all of these absences, and she will get the message on her next paycheck.
- d. Counsel her on the problem and establish an agreement with her for future incidents.

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## 41. What are the categories of managerial functions?

- a. Planning, organizing, actuating and controlling.
- b. Planning, organizing, staffing, directing and controlling
- c. Planning, organizing, commanding, coordinating, and controlling
- d. Planning, organizing, commanding and controlling.

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**42. You have inadvertently learned that one of your employee's is in therapy with a psychologist through an Employee Assistance Program. You should?**

- a. Confront the employee and demand to be told about their problems in detail.
- b. Ignore the information since it would be an invasion of privacy to try to discuss it with the employee.
- c. Tell the employee that you know about the problem and offer to discuss the issue further.
- d. Try to contact the Employee Assistance Program to see if you can help.



**42. You have inadvertently learned that one of your employee's is in therapy with a psychologist through an Employee Assistance Program. You should?**

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- d. Try to contact the Employee Assistance Program to see if you can help.

**43. You can identify and locate principal sources of accidents by determining the materials, machines, or tools most frequently involved in accidents and injuries. This is an important element in analyzing?**

- a. The human costs of accidents.
- b. Factors related to placing blame for the accident
- c. The circumstances surrounding accidents
- d. Variables impacting the education of collection system workers.

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**44. Which of the following identifies the main purpose of an enterprise or agency?**

- a. Strategy
- b. Objective
- c. Mission
- d. Policy

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**45. A supervisor could be responsible for an accident, in part or completely by?**

- a. Providing an unsafe work environment
- b. Requiring work to be performed
- c. Eliminating a potential hazard
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**46. What are the basic elements of a safety program?**

- a. Accident investigation, injury frequency rates, safety policy statement
- b. Injury frequency rates, safety policy statement, safety training
- c. Lost time accident statistics, injury frequency rates, accident investigation
- d. Safety policy statement, safety training, accident investigation

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**47. As a utility manager you may be requested by the media to be interviewed about a breaking news story. When speaking to the media, which of the following should you avoid?**

- a. Speaking in personal terms, free of institutional jargon.
- b. Arguing and showing anger if the reporter appears to be rude or aggressive
- a. Answering “I don’t know, but I’ll find out “if you are unsure of the correct response.
- b. Stating your key points early in the interview.

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# WHAT DOES CMMS STAND FOR?

- a. **COLLECTION MANAGEMENT MAINTENANCE SYSTEM**
- b. **COMPUTERIZED MANAGEMENT MAINTENANCE SYSTEM**
- c. **COMPUTER MANAGER MAINTENANCE SOURCE**
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## A CMMS is computer software designed to simplify maintenance management.

CMMS stands for [Computerized Maintenance Management System \(or Software\)](#) and is sometimes referred to as Enterprise Asset Management (EAM). To better understand what a CMMS is, we will break the term down into each individual component.

**Computerized:** Computerized refers to the fact that with a CMMS, your maintenance data is stored on a computer. This is hardly a surprising concept today. Before the 1980s, however, maintenance data was generally recorded with a pencil and paper. Because of this, maintenance was largely reactive rather than proactive. That is, maintenance was performed only when something went wrong. Preventive maintenance was less common because it was unrealistic to track which assets needed routine maintenance when all of your asset's maintenance records were kept in a filing cabinet.

When CMMS solutions came into fruition in the late 80s and early 90s, organizations began to migrate from pencil/paper and to their computers. Suddenly, organizations could track work orders, quickly generate accurate reports, and instantly determine which of their assets required preventive maintenance. This led to extended asset lifespans, improved organization, and ultimately reduced costs and increased profits.

**Maintenance:** Maintenance is what users of CMMS software do every day, whether it's responding to an on-demand work order for a broken window or performing routine inspection on a generator. Computer software cannot accomplish the work of a skilled technician. What it can do, however, is ensure tasks are prioritized correctly and that everything is in place (inventory, labor) to ensure success. CMMS solutions give technicians the freedom to focus less on paperwork and more on hands-on maintenance.

**Management:** Managing maintenance is the most essential role of a CMMS solution. Maintenance management software is designed to give users immediate insight into the state of his or her maintenance needs with comprehensive work order schedules, accurate inventory forecasts, and instant access to hundreds of invaluable reports. CMMS solutions make maintenance management easier by empowering managers with information so that they can make the most informed decisions possible.

**System:** A system can be thought of as the overall combination of features and capabilities within a CMMS. Different CMMS solutions offer different types of systems. The best CMMS system is one that allows users to accomplish his or her existing maintenance practices more effectively while introducing time-saving features that lead to a reduction of costs and a savings of time.

**48. Vibration Monitoring for rotating machinery, Oil Analysis that detects residual metal particles and Thermography, are examples techniques used in a?**

- a. Preventative maintenance Program.
- b. Predictive Maintenance Program.
- c. Reactive Maintenance Program.
- d. Reliability Center Maintenance Program.



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## **49. Collections system operators need to know how engineers design collection systems so they can?**

- a. Design large permanent collection systems
- b. Perform design calculations for the engineers
- c. Discuss the design with the engineers
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## **50. A good way to handle conflict in your department is to be?**

- a. Forceful, do not negotiate, and end it quickly
- b. Fair and equal, always compromise, and try to please all parties
- c. Alert to its presence, seek out its causes, and meet it head on
- d. Passive in your approach, do not rub those involved the wrong way and smile.

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**51. Sewer maps should be kept up-to-date for several reasons. Which of the following is the least appropriate reason?**

- a. So a TV inspection program can be planned and scheduled effectively
- b. So that census canvassers can determine data on standards of living.
- c. So that new house services can be connected with minimum difficulty
- d. To permit development of better plans and specifications for street improvements projects.

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## 52. Some advantages of outsourcing some of your maintenance/repair work are?

- a. Availability of Expertise; Technology and Resources; flexibility to increase/decrease level of effort in response to changing situations; Capability to change contractors at end of contract term.
- b. Always less expensive than using your own forces; ease of contract administration; and typically the work is completed sooner.
- c. It will motivate your own crews to improve performance; improves your agency's moral; and keeps expenses down.
- d. Little staff time is required to monitor performance; Contracting for services has little risk for the agency; and your customers feel better seeing professionals doing the work.



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**53. Why would a utility manager develop and implement predictive maintenance programs?**

- a. To reduce maintenance costs and downtime.
- b. To prevent regulators from issuing notices of violations.
- c. To determine future equipment needs.
- d. To keep up with current industry trends.

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**54. A condition that can cause cavitation in a pump is?**

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**55. It is difficult to know what another's perception is. A good way to determine if someone understands what you are trying to convey or do is to?**

- a. Tell them twice so it will be clear.
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## 56. What are the basic ways to finance capital improvements?

- a. General obligation bond, loan funding programs, revenue bonds
- b. Hook-up-fees, loan funding programs, revenue bonds
- c. Loan funding programs, revenue bonds, user service charges.
- d. General obligation bonds, loan funding programs, revenue bonds.



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## **57. How can the supervisor be certain that scheduled maintenance is completed?**

- a. Ask the workers
- b. Hire someone to inspect completed work
- c. Use a form that compares work assigned with work completed
- d. Wait and see if there are any failures.

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**58. The State Water Resources Control Board Order No. 2006-003-DWQ established the Statewide General Waste Discharge Requirements for Sanitary Sewer systems. This requirement affects all owners of operations of sanitary sewer systems?**

- a. Greater than 100 miles in length
- b. Greater than 1 mile in length
- c. That are satellite systems
- d. That are wastewater treatment systems

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# HOW LONG MUST YOU KEEP A SSO REPORT ON FILE

- a. 1 year
- b. 3 years
- c. 5 years
- d. 10 years

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STATE WATER RESOURCES CONTROL BOARD MONITORING AND  
REPORTING PROGRAM NO. 2006-0003-DWQ  
STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR SANITARY  
SEWER SYSTEMS

**B. Record Keeping**

1. Individual SSO records shall be maintained by the Enrollee for a **minimum of five years from the date of the SSO.**
2. This period may be extended when requested by a Regional Water Board Executive Officer.
3. All records shall be made available for review upon State or Regional Water Board staff's request.
4. All monitoring instruments and devices that are used by the Enrollee to fulfill the prescribed monitoring and reporting program shall be properly maintained and calibrated as necessary to ensure their continued accuracy;



# STATE WATER RESOURCES CONTROL BOARD MONITORING AND REPORTING PROGRAM NO. 2006-0003-DWQ

## STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR SANITARY SEWER SYSTEMS

- 5. The Enrollee shall retain records of all SSOs, such as, but not limited to and when applicable:**
- a. Record of Certified report, as submitted to the online SSO database;
  - b. All original recordings for continuous monitoring instrumentation;
  - c. Service call records and complaint logs of calls received by the Enrollee;
  - d. SSO calls;
  - e. SSO records;
  - f. Steps that have been and will be taken to prevent the SSO from recurring and a schedule to implement those steps.
  - g. Work orders, work completed, and any other maintenance records from the **previous 5 years** which are associated with responses and investigations of system problems related to SSOs;
  - h. A list and description of complaints from customers or others from the **previous 5 years**; and
  - i. Documentation of performance and implementation measures for the **previous 5 years**.

STATE WATER RESOURCES CONTROL BOARD MONITORING AND  
REPORTING PROGRAM NO. 2006-0003-DWQ  
STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR SANITARY  
SEWER SYSTEMS

6. If water quality samples are required by an environmental or health regulatory agency or State law, or if voluntary monitoring is conducted by the Enrollee or its agent(s), as a result of any SSO, records of monitoring information shall include:

Monitoring and Reporting Program No. 2006-0003-DWQ Page 5 of 5  
Statewide General WDRs for Sanitary Sewer Systems 5/2/2006

- a. The date, exact place, and time of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical technique or method used; and,
- f. The results of such analyses.

**59. One of the employees in your crew complains about having to do a hard job. The proper thing to do is?**

- a. Explain that all employees must do their fair share of the hard work as well as the easier tasks.
- b. Ignore the complaint
- c. Promise that the assignments will be easier ones
- d. Tell the employee to shut up and work or quit and go home.

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## 60. Sanitary sewer overflow (SSO) is defined as?

- a. Any, overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system.
- b. Any, overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system in excess of one gallon.
- c. Any, overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system in excess of 100 gallons
- d. Any, overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system in excess of 1000 gallons

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**61. The managerial function which involves devising an appropriate system of pay is?**

- a. Controlling
- b. Organizing
- c. Planning
- d. Staffing

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## 62. The span of supervision is the

- a. Average length of time required to be in the organization before making supervisor.
- b. Number of levels between the lowest employee and the boss
- c. Number of subordinates each manager
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**63. In order to accurately estimate the volume of a sanitary sewer overflow (SSO) you must have?**

- a. Spill start time, spill end time, and spill rate
- b. Spill start time, spill location, spill source
- c. Spill duration, surface type, spill source.
- d. Spill start time, spill end time, surface type.

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**64. In the steps of the decision making process, which step utilizes outside influences, such as experience the most?**

- a. Analyzing the problem
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## **65. Training for supervisors is different than training for maintenance workers because supervisors?**

- a. Need to communicate effectively, motivate and delegate responsibilities
- b. Have already had the training of the maintenance worker
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- d. Need to maintain a "wall" between themselves and the maintenance worker.

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**66. Providing a plan and schedule to properly manage, operate and maintain all parts of the sanitary sewer system is the goal of?**

- a. A Sanitary Sewer Overflow Response Plan.
- b. An Emergency Response Plan
- c. A Sewer System Management Plan
- d. A Sanitary Sewer Management Plan.

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**68. You are the superintendent of an 18 worker collection system maintenance operation. Last year 4 workers cleaned 150 miles of pipe using power rodding (40%) and high-velocity cleaners (60%). The power rodder cost \$14,800 per year to own and operate (excluding labor) and the high-velocity cleaner cost \$27,500 per year. The remaining workers replaced 40,000 feet of 6 inch and 8 inch pipe at 680 work sites. The construction equipment cost \$199,870 per year to own and operate. There are 220 working days per year and each worker costs \$250 per day for salary and benefits.**

**What are the unit costs, in dollars per foot, for cleaning?**

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## **69. Reactive maintenance activities include?**

- a. Capital improvements
- b. Preventive and emergency maintenance
- c. Corrective and emergency maintenance
- d. An emergency response plan and emergency repair procedures

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## 70. A safety policy statements purpose is to?

- a. Show employees that the safety program has the support of the agency
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- d. Set guidelines in case of an accident.

## **71. How should you tell an employee that their performance is substandard?**

- a. It is best to confront the worker just before they leave for the day in order to limit the time that they can respond.
- b. Subtle hints work best for this type of message rather than a confrontational approach.
- c. Explain what they are doing, explain what the job standard is, and point out the discrepancy.
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**72. A group of new employees has recently been sent through a classroom- type training program. After being assigned to your unit, the best way to complete their training is to?**

- a. Teach them rules and regulations of the organization
- b. Provide on the job training to augment the classroom training
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### **73. Participative management is usually defined as?**

- a. Management and the community collaborating in decision making.
- b. Management and government collaborating in decision making.
- c. Management and employees collaborating in decision making.
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**74. An 8 inch diameter force main serves 1,837 homes. For estimating purposes, there are 2.6 people per home and per capita use is 100 gallons per day. What is the average flow velocity in feet per second?**

- a. 0.477 feet/second
- b. 0.739 feet/second
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## **75. When a field supervisor gets multiple emergency phone calls, he or she should?**

- a. Evaluate the emergencies and assign priorities to the crew.
- b. Take care of the calls in the order in which they were received
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- d. Start filling out spill reports with the Regional Water Pollution Control Agency

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**76. In the evaluation of an applicant for employment, which of the following may enter into your decision?**

- a. Age
- b. Education level
- c. Minority classification
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- a. Demonstrate pattern of lawful behavior over a period of time
- b. To polish your report writing skills
- c. Record all uncritical events
- d. Give bookkeepers a job

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- a. Job observations
- b. Attendance records
- c. Impact on the budget
- d. Employee feedback

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## **79. What is the best approach to solve a discipline problem?**

- a. Accept the employee's solution to the problem
- b. Form a committee of peers to make a recommendation
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- d. State the problem and then ask the employee to suggest a solution.

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## **80. What are the normal challenges that a manager faces from within a collection system organization?**

- a. Equipment needs, resources allocation, local community demands
- b. Local community demands, monitoring from regulatory agencies
- c. Personnel requirements, equipment needs, resource allocation
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- a. Sufficient revenues
- b. Good records from previous year
- c. Budget surplus
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**82. All discharges of sewage resulting from a failure in the sanitary sewer system that equal or exceed 1000 gallons, discharge into a drainage channel and/or surface water or discharge to a storm drainpipe that was not fully captured and returned to the sanitary system is?**

- a. Category 2 spill
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## 83. What are functions of a manager?

- a. Planning, organizing, staffing, building and controlling
- b. Padding, threading, staffing, directing and controlling
- c. Planning, organizing, staffing directing and controlling.
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**84. The three basic ways for a utility to finance a capital improvement program are?**

- a. General private bonds, revenue bonds and loans
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**85. Which of the following is the most proactive example of a good preventive maintenance plan?**

- a. Performing television inspection of a gravity sewer system on a five year cycle (Calendar period) at the end of the five year period, the cycle would start over again.
- b. Visually inspecting manholes or monitoring flows; when changes in flow conditions are observed, cleaning is then scheduled accordingly
- c. A piece of equipment or system is allowed to operate until it fails; only then is maintenance performed.
- d. A sewer blockage is responded to immediately to prevent a spill or flooded home.

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**86. Which one of the following questions is an acceptable interview question?**

- a. What is your religious leader?
- b. What is the nationality of your parents or spouse?
- c. What is your age?
- d. What is your technical background?

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**87. Which of the following does a SCADA system use to transmit general data to field-mounted equipment?**

- a. Radio telemetry unit
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## 88. What does SCADA stand for?

- a. Solar communication and data acquisition
- b. Supervisory control and data acquisition.
- c. Supervisory cabinet and data acquisition.
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**90. When doing sewer maintenance on a line every two months during the year. It takes the crew 30 minutes travel time, 35 minutes to clean and 10 minutes to set up. The cost is \$50.00 per hour for two operators, two flaggers at \$8.00 each per hour, \$100.00 per hour for the combo truck and \$10.00 per hour for a pickup truck. What would be your cost per year to clean that line?**

- a. \$1255.00
- b. \$1318.50
- c. \$1365.25
- d. \$1399.50

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