

Teaching Techniques and Methodology

Practice Test 4

60 original multiple-choice questions for teacher test preparation (FPSC / FGEI / PPSC style). Choose one answer for each question. The full answer key is on the last page — worked explanations for every question are free on the test page at QuaidianPoint.com.

Name: _____ Class: _____ Score: _____ / 60

Purpose and Steps of a Good Demonstration

Q1. The main purpose of the demonstration technique is to:

- (A) Let pupils discover a principle entirely on their own, without any guidance, explanation, or help from the teacher at all
- (B) Test pupils on what they memorised from the textbook
- (C) Show a process, skill, or phenomenon live so pupils can observe it clearly before they practise or explain it
- (D) Keep pupils busy with written work while the teacher marks notebooks

Q2. A teacher demonstrates how a magnet attracts iron filings instead of only describing it in words. Demonstration is the right choice here mainly because:

- (A) The process is easier to understand when seen happening than when only described
- (B) Pupils prefer watching to reading in every lesson, whatever the topic or the purpose of the lesson may be
- (C) It uses up the whole period quickly
- (D) It removes the need for any explanation afterwards

Q3. What is the first step of a well-planned demonstration?

- (A) Calling pupils to the front to try the apparatus before the teacher has planned or tested anything at all
- (B) Writing the results on the board
- (C) Asking pupils to write a summary
- (D) Deciding the objective, selecting apparatus, and rehearsing the demonstration in advance

Q4. While performing a demonstration, the teacher should carry out each step so that:

- (A) Only the front row can follow what is happening, while the rest of the class listens without seeing anything
- (B) Every pupil can see it clearly, with steps done slowly enough to follow
- (C) The demonstration finishes as fast as possible
- (D) Pupils are surprised by sudden, unexplained actions

Q5. After showing how water rises in a capillary tube, the teacher explains why it happens and links it to how plants absorb water. This stage of the demonstration is best described as:

- (A) Planning the apparatus and arranging it on the table before the pupils arrive in the classroom
- (B) Rehearsing in private
- (C) Marking pupils' notebooks
- (D) Explaining and interpreting what was observed, linking it to the principle

Q6. During a demonstration of filtration, the teacher asks pupils to predict what will pass through the filter paper before she pours the mixture. Inviting predictions is good practice because it:

- (A) Wastes time that could be spent finishing the demonstration faster and moving on to the next topic
- (B) Turns passive watching into active thinking and gives pupils a reason to observe closely
- (C) Lets the teacher find out which pupils are weakest
- (D) Removes the need for an explanation afterwards

Q7. A good follow-up after a demonstration of using a thermometer is for pupils to:

- (A) Practise measuring temperatures themselves and record and explain their readings
- (B) Copy the teacher's demonstration notes into their books, including the readings she obtained
- (C) Watch a second demonstration using a different thermometer
- (D) Answer written questions about temperature scales

Q8. A teacher rehearses her demonstration of a chemical reaction the evening before the lesson. The main benefit of rehearsal is that it:

- (A) Makes the lesson longer
- (B) Impresses visitors to the classroom
- (C) Reveals faults in apparatus or timing before they can spoil the live lesson
- (D) Removes the need to plan questions

Q9. Narration during a demonstration means the teacher:

- (A) Gives a running commentary that links each action to the principle being shown, as the action happens
- (B) Reads a story aloud to the class while pupils watch the demonstration silently without any guidance about what they should notice
- (C) Writes notes on the board after the lesson ends
- (D) Asks pupils to narrate a film at home

Q10. Good narration during a demonstration should be:

- (A) Delivered entirely before the demonstration starts, so that pupils must remember it all while they watch
- (B) In difficult technical language to raise standards
- (C) Spoken after the demonstration has finished
- (D) Simple, timed with the action, and focused on what pupils should notice

Q11. A teacher performs a demonstration in complete silence, then explains everything at the end. The main weakness of this approach is that pupils:

- (A) Get too much time to think, so that they become confused about what the demonstration is meant to show
- (B) Finish their notes too early
- (C) Watch without guidance on what to notice, so many miss the key point
- (D) Ask too many questions afterwards

Q12. Just before pouring two liquids together, a teacher asks: "What do you expect to happen, and why?" Asking this during the demonstration mainly:

- (A) Check whether pupils remember the definitions taught in the previous lesson
- (B) Engages pupils' thinking and focuses their observation on the result
- (C) Slow the demonstration so slower pupils can copy the steps
- (D) Give the teacher time to set out the next apparatus

Q13. Before a demonstration, the teacher should arrange the apparatus so that it is:

- (A) Hidden from pupils until the very end, so that they cannot see what apparatus will be used at all
- (B) Tested, within easy reach, and laid out in the order in which it will be used
- (C) Piled together so pupils can sort it out
- (D) Left in the cupboard to save time

Q14. A teacher uses a large model of the human heart because the real organ cannot be shown in class. Models are valuable in demonstrations mainly when the real object is:

- (A) Already familiar to every pupil, so that the model adds nothing new to what they already know
- (B) Easy to draw on the board
- (C) Too large, too small, too costly, or unsafe to bring into the classroom
- (D) Available in large numbers for every pupil

Q15. In a class of 55, a teacher demonstrates a small chemical change in a test tube. To make sure back-benchers can follow, her best step is to:

- (A) Raise the apparatus, use a large container or model, and repeat the key observation for all to see
- (B) Whisper the result quietly to the front row, so that the back rows must guess what actually happened
- (C) Perform the demonstration faster so it can be repeated many times
- (D) Ask back-benchers to read the textbook instead

Q16. A teacher performs an experiment on rusting while pupils watch and record observations. A pupil then repeats it in a group with his own materials. The difference between the two activities is that in a demonstration:

- (A) Pupils work entirely without any guidance from the teacher, whatever the difficulty of the experiment may be
- (B) No observations are recorded
- (C) The teacher explains everything and pupils do nothing
- (D) The teacher performs while pupils observe, whereas in an experiment pupils perform the work themselves

Q17. A teacher shows a labelled chart of the water cycle and talks through it. This is best described as:

- (A) An experiment, because pupils learn about water
- (B) A demonstration, because the teacher is showing something to the class while she explains the water cycle and points to each part of the chart in turn
- (C) A field trip, because the topic is nature
- (D) An illustration, because a static visual example supports the explanation rather than a live process being performed

Q18. In an experiment lesson, pupils change the amount of light on plants and measure growth. This differs from a demonstration because pupils themselves:

- (A) Manipulate variables and test an idea hands-on
- (B) Watch the teacher work while they sit at their desks and record whatever the teacher tells them to write
- (C) Listen to a lecture
- (D) Copy a diagram from the board

Q19. A school has only one set of apparatus for testing acids, and the chemicals are hazardous for young pupils to handle. The teacher should prefer demonstration over pupil experiment here because demonstration:

- (A) Is always more interesting than any experiment, whatever the topic or the age of the pupils may be
- (B) Is safer and more economical when apparatus is scarce or materials are dangerous
- (C) Needs no explanation afterwards
- (D) Guarantees pupils will remember everything

Q20. Pupils need to learn the skill of focusing a microscope themselves. The teacher demonstrates first, then lets pupils practise. Pupil experiment or practice is better than demonstration alone here because:

- (A) Pupils remember a skill better when they have seen it demonstrated well first in class
- (B) Pupils are more interested in lessons that include practical work
- (C) A manual skill is only learned by doing it oneself, not by watching someone else
- (D) Demonstration shows only the finished result, not the steps involved

Narration, Apparatus, and Demonstration Compared with Experiment and Illustration

Q21. During a demonstration, a teacher talks continuously about the history of science while performing the steps, and pupils watch her face rather than the apparatus. The main fault in her narration is that it:

- (A) Is too short to explain anything properly, so pupils cannot follow what the teacher is doing at all
- (B) Is spoken too quietly
- (C) Distracts from the action instead of guiding observation of it
- (D) Uses too few technical terms

Q22. Mid-demonstration, a burner fails to light. The teacher's best response is to:

- (A) Blame the pupils for the failure and end the lesson at once, whatever the cause of the problem may be, without any explanation
- (B) Stay calm, explain what has happened, and use a prepared alternative or continue with the explanation
- (C) Pretend the demonstration worked and describe imaginary results
- (D) Leave the classroom to find another teacher

Q23. Before demonstrating a reaction that gives off fumes, the teacher states safety rules, keeps pupils at a safe distance, and performs the step herself. These precautions matter mainly because:

- (A) They make the lesson longer than planned, so that less time remains for written work afterwards, whatever the safety needs of the demonstration may be
- (B) They impress the headteacher
- (C) They save chemicals
- (D) Pupil safety comes before any demonstration, and hazardous steps must stay under the teacher's control

Q24. For a demonstration to succeed in a crowded classroom, the most important management step is to arrange:

- (A) Seating and standing positions so that every pupil has a clear view of the demonstration table
- (B) Extra written work for fast finishers, so that they stay busy while the rest of the class watches the demonstration
- (C) A longer lunch break after the lesson
- (D) A test immediately after the demonstration

Q25. One economic strength of demonstration is that:

- (A) A single set of apparatus serves the whole class, instead of one set per pupil or group
- (B) It needs no apparatus at all, since the teacher can describe everything in words without showing anything
- (C) It removes the need for a teacher
- (D) It shortens every topic to one lesson

Q26. Demonstration helps pupils grasp abstract ideas such as air pressure mainly because it:

- (A) Replaces the need for definitions entirely, so that pupils never have to learn the meaning of any term
- (B) Makes the lesson entertaining
- (C) Gives a concrete, visible event that the abstract idea can be attached to
- (D) Reduces the amount pupils must write

Q27. The main limitation of a demonstration in which pupils only watch is that pupils:

- (A) Learn the topic too quickly, so that the teacher runs out of material before the period has ended
- (B) May remain passive, watching without thinking or doing
- (C) Ask too few questions
- (D) Finish their notes too early

Q28. A teacher demonstrates a colour change in a small beaker at the front. Pupils at the back later say they saw nothing. This illustrates the limitation that:

- (A) Demonstrations are always boring for pupils, whatever the topic or the skill of the teacher may be
- (B) Demonstrations need no planning
- (C) Demonstrations cannot teach science topics
- (D) Visibility fails in large classes unless the apparatus or display is enlarged

Q29. To keep pupils active during a demonstration, the teacher gives each pupil an observation task: "Note the colour at each step and the time it changes." This works because pupils then:

- (A) Have written work to show the headteacher, so that the lesson appears well organised to any visitor
- (B) Observe with a purpose and record evidence instead of watching idly
- (C) Compete to finish first
- (D) Avoid asking questions

Q30. A demonstration that drags on for 35 minutes loses pupils' attention. The best management principle here is to keep a demonstration:

- (A) As long as possible, so that more content can be covered in a single period without any pupil activity
- (B) Silent so pupils concentrate harder
- (C) Unplanned so it feels natural
- (D) Short, focused on one clear point, and followed by pupil activity

Q31. Before starting a demonstration, the teacher tells the class: "Stay seated, watch the table, and raise your hand to ask." Giving such rules in advance matters because it:

- (A) Frightens pupils into silence, so that nobody dares to ask a question during the demonstration
- (B) Adds formality to the lesson
- (C) Prevents crowding and confusion so that everyone can observe safely
- (D) Removes the need for an explanation

Q32. A teacher demonstrates how to use a compass to draw a circle. She breaks the skill into small steps and repeats the key step of keeping the point fixed. Breaking a skill into steps and repeating the key step helps because pupils:

- (A) Can follow and remember each part of the procedure in order
- (B) Get a longer break afterwards, since the demonstration has taken up most of the lesson period
- (C) Need not practise afterwards
- (D) Learn to draw faster without accuracy

Q33. During a demonstration of evaporation, the teacher writes each observation on the board as it appears. Recording results during the demonstration helps pupils to:

- (A) Give pupils a complete set of notes to copy at the end
- (B) Keep pupils busy writing while the demonstration runs
- (C) Let pupils who missed the demonstration catch up from the board afterwards
- (D) See the pattern of results build up and link it to the conclusion

Q34. After demonstrating that warm air rises, the teacher asks: "Why did the paper spiral turn, and where else does this happen?" This follow-up discussion is valuable because it moves pupils from:

- (A) Watching the demonstration to memorising definitions from the textbook without understanding them
- (B) Listening to copying notes
- (C) Observing an event to explaining it and applying it to new cases
- (D) Working in groups to working alone

Q35. How can a teacher best judge whether her demonstration lesson worked?

- (A) By checking whether the apparatus was expensive and newly purchased for the science laboratory
- (B) By checking whether pupils can afterwards describe the process and explain why it happened
- (C) By checking whether the lesson finished on time
- (D) By checking whether pupils enjoyed watching

Q36. Good questioning runs through a demonstration at three points. The best pattern is to ask questions:

- (A) Before, to elicit predictions; during, to focus observation; and after, to check explanation
- (B) Only at the end of the demonstration, so that the demonstration itself is never interrupted at all
- (C) Only before, so pupils are not distracted later
- (D) Only to the brightest pupils, to keep pace

Q37. Demonstration is useful beyond science lessons. For example, a language teacher demonstrates correct letter formation on the board before pupils practise. This shows that demonstration is suitable for teaching:

- (A) Any skill or procedure whose steps benefit from being seen performed correctly first
- (B) Only chemistry experiments that involve dangerous chemicals and expensive laboratory apparatus
- (C) Only topics with expensive apparatus
- (D) Only lessons for senior pupils

Q38. A teacher uses a diagram of a flower alongside a live dissection demonstration. The diagram is best used as:

- (A) A replacement for the live demonstration, so that the teacher need not perform the dissection at all
- (B) A support that labels parts while the live demonstration shows the real process
- (C) A test given after the lesson
- (D) A punishment for inattentive pupils

Q39. When planning a demonstration, the teacher's checklist should include materials, steps in order, questions to ask, and:

- (A) The names of pupils to punish if they misbehave during the demonstration lesson
- (B) A longer homework task
- (C) Safety precautions and what to do if a step fails
- (D) A list of topics for next month

Q40. A demonstration fails because the teacher never tested a borrowed apparatus. The lesson to draw is that a teacher should:

- (A) Never borrow apparatus
- (B) Avoid demonstrations entirely
- (C) Blame the owner of the apparatus
- (D) Always rehearse with the actual apparatus and keep a spare or alternative ready

Strengths, Limitations, and Classroom Management During Demonstrations

Q41. Compared with a lecture alone, a demonstration adds value mainly because it:

- (A) Takes less preparation
- (B) Needs no follow-up work
- (C) Provides visual proof that pupils see happening, rather than only hearing about
- (D) Works without any pupil attention

Q42. During a demonstration, the teacher invites one pupil to hold a chart steady while the rest observe and record. This use of a pupil assistant is good because the helper:

- (A) Does all the learning while others watch
- (B) Replaces the teacher for the lesson
- (C) Is exempt from follow-up work
- (D) Assists under the teacher's guidance while the rest of the class still observes and learns

Q43. Pupils grasp most of a demonstration but miss one step. The teacher's best response is to:

- (A) Repeat only the unclear step, slowly and with narration
- (B) Repeat the entire lesson from the beginning
- (C) Tell pupils to read the chapter at home
- (D) Move on, since most pupils understood

Q44. Where does a demonstration best fit within a lesson on a new process?

- (A) At the very end, after pupils have already practised alone
- (B) After the introduction and before pupil practice, so pupils have a model to copy
- (C) Only in the next lesson, as revision
- (D) Instead of any introduction or conclusion

Q45. Demonstration particularly helps slower learners because its steps are:

- (A) Delivered very quickly
- (B) Visible, ordered, and repeated, so they can follow at the pace of the action
- (C) Hidden until the end
- (D) Explained only in writing

Q46. A teacher cannot bring a real steam engine into class, so she demonstrates with a working model. This is sound practice because a model:

- (A) Lets pupils see the working principle at classroom scale, even though the real machine is unavailable
- (B) Is always more accurate than the real machine
- (C) Needs no explanation from the teacher
- (D) Replaces all practical work permanently

Q47. During a demonstration of rusting, results appear over several days. The best way to record them is to:

- (A) Rely on pupils' memory at the end of the week
- (B) Describe the results only in the teacher's diary
- (C) Wait until the final day to mention the demonstration again
- (D) Keep a table on the board or chart, filled in as each new observation is made

Q48. A good conclusion to a demonstration lesson states:

- (A) Which pupils answered questions during the lesson
- (B) How the apparatus should be cleaned and stored
- (C) The principle demonstrated, linked back to the theory it illustrates
- (D) What homework pupils must complete before the next lesson

Q49. A teacher stands directly in front of the demonstration table, blocking the view of half the class. The fix is for the teacher to:

- (A) Speak more loudly
- (B) Perform the demonstration faster
- (C) Ask pupils to stand on their desks
- (D) Position herself to the side of the table so the apparatus stays visible to all

Q50. A teacher performs a demonstration so quickly that pupils cannot follow the steps. The best correction is to:

- (A) Perform it even faster so pupils pay closer attention
- (B) Slow down, pause at key steps, and narrate what is happening
- (C) Skip the explanation to save time
- (D) Ask only the front row what they saw

Q51. In a demonstration lesson, pupils sit silently throughout and are never asked anything. The main fault is the lack of pupil involvement, and the best fix is to add:

- (A) More apparatus for the teacher to use
- (B) A longer lecture after the demonstration
- (C) Predictions, questions, and observation tasks during the demonstration
- (D) A test on the previous chapter

Q52. A teacher demonstrates an impressive experiment that has nothing to do with the lesson objective. The fault is that the demonstration is:

- (A) Unrelated to what pupils are meant to learn, however entertaining it is
- (B) Too short to be impressive
- (C) Performed without a model
- (D) Watched by too many pupils

Q53. A teacher demonstrates filtration: folding the paper, placing it in the funnel, then pouring the mixture. The order of steps matters most here because filtration is a:

- (A) Procedure, in which each step prepares the next and a wrong order spoils the result
- (B) Fact that can be memorised in any order
- (C) Debate topic with many viewpoints
- (D) Story that can be told backwards

Q54. A teacher acts out a historical scene with pupils playing roles. This dramatisation differs from a demonstration because dramatisation:

- (A) Uses no pupils at all
- (B) Is always done outdoors
- (C) Needs expensive apparatus
- (D) Enacts roles and events through acting, while demonstration shows a real process or skill

Q55. A teacher demonstrates water pressure using a plastic bottle, a pin, and tap water instead of laboratory equipment. Using everyday materials is beneficial because it:

- (A) Makes the lesson look less serious
- (B) Makes the idea familiar and lets pupils repeat the demonstration at home
- (C) Removes the need for any explanation
- (D) Guarantees perfect results every time

Q56. During a demonstration involving heating, the teacher handles the hot apparatus herself while pupils observe from their seats. This arrangement is correct because:

- (A) Pupils should never see heating demonstrations
- (B) Heating demonstrations are banned in schools
- (C) The teacher keeps the hazardous step under her control while pupils still observe safely
- (D) Pupils learn better without seeing the apparatus

Q57. A headteacher observes a demonstration lesson. The strongest evidence that the lesson succeeded is that:

- (A) The classroom was completely silent
- (B) The apparatus was new and costly
- (C) The objective was met, pupils were engaged and could explain the process, and safety was maintained
- (D) The lesson ended exactly on the bell

Q58. Which homework best follows a demonstration of separating a sand-and-water mixture?

- (A) Write the steps of the separation in order, with a short explanation of why each step works
- (B) Copy the definition of a mixture ten times
- (C) Draw a picture of the school building
- (D) Memorise the names of laboratory instruments

Q59. A school has no science laboratory, but the teacher wants to demonstrate condensation. Her best option is to:

- (A) Skip the topic entirely
- (B) Show a video demonstration with live narration, pauses for predictions, and a follow-up explanation
- (C) Describe condensation in words only and set no follow-up
- (D) Ask pupils to imagine condensation silently

Q60. Which quality matters most in a good demonstration?

- (A) The apparatus must be the most expensive available
- (B) The demonstration must last the whole period
- (C) The teacher must perform it without speaking
- (D) It must be clear, visible to all, and directly linked to the concept being taught

Answer Key

Q1: C	Q11: C	Q21: C	Q31: C	Q41: C	Q51: C
Q2: A	Q12: B	Q22: B	Q32: A	Q42: D	Q52: A
Q3: D	Q13: B	Q23: D	Q33: D	Q43: A	Q53: A
Q4: B	Q14: C	Q24: A	Q34: C	Q44: B	Q54: D
Q5: D	Q15: A	Q25: A	Q35: B	Q45: B	Q55: B
Q6: B	Q16: D	Q26: C	Q36: A	Q46: A	Q56: C
Q7: A	Q17: D	Q27: B	Q37: A	Q47: D	Q57: C
Q8: C	Q18: A	Q28: D	Q38: B	Q48: C	Q58: A
Q9: A	Q19: B	Q29: B	Q39: C	Q49: D	Q59: B
Q10: D	Q20: C	Q30: D	Q40: D	Q50: B	Q60: D

Worked explanations for all 60 questions:

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