

01	A	B	C	D	E
02	A	B	C	D	E
03	A	B	C	D	E
04	A	B	C	D	E
05	A	B	C	D	E
06	A	B	C	D	E
07	A	B	C	D	E
08	A	B	C	D	E
09	A	B	C	D	E
10	A	B	C	D	E
11	A	B	C	D	E
12	A	B	C	D	E
13	A	B	C	D	E

14	A	B	C	D	E
15	A	B	C	D	E
16	A	B	C	D	E
17	A	B	C	D	E
18	A	B	C	D	E
19	A	B	C	D	E
20	A	B	C	D	E
21	A	B	C	D	E
22	A	B	C	D	E
23	A	B	C	D	E
24	A	B	C	D	E
25	A	B	C	D	E
26	A	B	C	D	E

27	A	B	C	D	E
28	A	B	C	D	E
29	A	B	C	D	E
30	A	B	C	D	E
31	A	B	C	D	E
32	A	B	C	D	E
33	A	B	C	D	E
34	A	B	C	D	E
35	A	B	C	D	E
36	A	B	C	D	E
37	A	B	C	D	E
38	A	B	C	D	E
39	A	B	C	D	E

PRACTICE QUESTIONS

CA CONTRACTORS STATE LICENCE BOARD

LA9QHRLJ

C-12 Earthwork and Paving

EDITION

Demo

QUESTIONS

9

FORMAT

Limited Edition PDF

Before you begin

What this is

9 practice questions for CA CONTRACTORS STATE LICENCE BOARD LA9QHRLJ , each with its answer key and an explanation. Answer a question before you read its key — the explanation is worth more once you have committed.

If something looks wrong

Send us three things and we will check it:

- the exam code, LA9QHRLJ
- the question number
- the email address on your order

Write to **support@mometrix.net**. We reply within one business day.

QUESTION 1

MULTIPLE CHOICE

Prior to commencing earthwork on a grading project, the C-12 contractor is responsible for several pre-construction planning activities. Which of the following are typically required as part of a complete pre-construction plan? (Choose three.)

- ☒ **A** Reviewing the geotechnical (soils) report to determine bearing capacity and suitability of existing materials
- ☒ **B** Reviewing the precise grading plan, drainage plan, and any erosion and sediment control requirements
- ☐ **C** Negotiating the contract price with adjacent property owners
- ☒ **D** Identifying underground utilities through utility-locate services (e.g., USA/811) and any overhead hazards
- ☐ **E** Selecting architectural interior finishes for the future building
- ☐ **F** Purchasing homeowners' insurance for neighboring parcels

ANSWER A • B • D

WHY Pre-construction planning for C-12 earthwork and paving work centers on site conditions: the geotechnical report defines suitable soils and bearing capacity; the grading/drainage/erosion-control drawings define the work; and utility locates protect workers and existing infrastructure from strikes. Option C (negotiating with adjacent owners) is not a contractor responsibility, and E (interior finishes) and F (neighbor insurance) belong to other trades or parties.

QUESTION 2

MULTIPLE CHOICE

An OSHA-compliant excavation safety program must address several recognized hazards. Which of the following hazards must be addressed when workers are entering an excavation more than 5 feet deep? (Choose three.)

- ☒ **A** Cave-in protection through sloping, benching, shoring, or a trench shield
- ☒ **B** Means of egress such as ladders, steps, or ramps within the required travel distance
- ☒ **C** Daily inspection of the excavation by a competent person
- ☐ **D** Installation of decorative lighting along the trench perimeter
- ☐ **E** Posting of an excavator operator certification diploma in the site trailer

ANSWER A · B · C

WHY OSHA Subpart P (29 CFR 1926.650-652) requires cave-in protective systems (sloping/benching/shoring/shielding) for excavations deeper than 5 feet, a competent person to perform daily inspections, and a means of egress (commonly a ladder) within 25 feet of workers. Decorative lighting (D) and posting a diploma in the trailer (E) are not required excavation-safety elements.

QUESTION 3

SINGLE CHOICE

In the field, a soils technician most commonly performs in-place density testing of compacted fill using which instrument?

- ☐ **A** Slump cone
- ☒ **B** Sand cone (or nuclear density gauge)
- ☐ **C** Marsh funnel
- ☐ **D** Pressuremeter

ANSWER B

WHY In-place density of compacted soil is typically measured in the field with a sand cone apparatus or, more commonly today, a nuclear density gauge. A slump cone (A) measures concrete slump; a Marsh funnel (C) measures drilling mud viscosity; a pressuremeter (D) measures in-situ lateral soil stress and stiffness, not density.

QUESTION 4 SINGLE CHOICE

A site requires 5,000 cubic yards (bank) of cut, but the excavated material shrinks by 12% when placed as compacted fill. How many cubic yards of compacted fill will the excavation actually produce?

- ☒ **A** 4,400 cubic yards
- ☐ B 5,000 cubic yards
- ☐ C 5,600 cubic yards
- ☐ D 4,000 cubic yards

ANSWER A

WHY Shrinkage reduces the volume of material available as fill. Compacted fill = bank volume $\times$ (1 – shrinkage factor) = $5,000 \times (1 - 0.12) = 5,000 \times 0.88 = 4,400$ cubic yards. The 5,600 value (C) would represent swell, not shrinkage; 5,000 (B) ignores shrinkage; 4,000 (D) corresponds to a 20% shrinkage, not 12%.

QUESTION 5 SINGLE CHOICE

A typical street improvement plan shows the elevation of the top of curb at the point of curvature (PC) as 102.40 feet and at the point of tangency (PT) as 102.10 feet over a horizontal distance of 130 feet. What is the roadway centerline grade (percent) between the PC and PT?

- ☐ A +0.23%
- ☒ **B** -0.23%
- ☐ C +2.30%
- ☐ D -2.30%

ANSWER B

WHY Grade % = (rise/run) $\times$ 100. Rise = $102.10 - 102.40 = -0.30$ ft; run = 130 ft. Grade = $(-0.30 / 130) \times 100 = -0.2307\%$, which rounds to -0.23%. Because the elevation drops from PC to PT, the grade is a descending (negative) grade.

QUESTION 6

SINGLE CHOICE

Why is proof rolling performed on a prepared subgrade immediately prior to placing aggregate base?

- ☐ A To compact the asphalt pavement after placement
- ☒ B To detect soft or yielding areas that require repair before base is placed
- ☐ C To set final curb elevation
- ☐ D To determine the concrete slump of the curb mix

ANSWER B

WHY Proof rolling uses a heavy (typically loaded) wheeled or rubber-tired vehicle to drive over the prepared subgrade so that soft, pumping, or otherwise unstable spots are exposed before aggregate base and pavement are placed over them. It is a quality-control check, not a paving compaction step (A), a curb elevation step (C), or a concrete test (D).

QUESTION 7

SINGLE CHOICE

When placing and compacting aggregate base (e.g., Class 2) on a roadway project, what is the typical maximum loose lift thickness used to achieve the specified relative compaction?

- ☐ A 6 inches
- ☒ B 12 inches
- ☐ C 24 inches
- ☐ D 36 inches

ANSWER B

WHY Aggregate base is generally placed in loose lifts of about 12 inches (or less, per the project specifications) so that the specified compaction (commonly 95% or 100% relative compaction) can be achieved throughout the lift. Thinner lifts (e.g., 6 in) are also used but 12 in is the typical maximum; 24 in (C) and 36 in (D) are far too thick to compact properly.

QUESTION 8

SINGLE CHOICE

During asphalt placement, rolling patterns must be completed while the mix temperature is still within the working temperature range. Which of the following best describes the principal purpose of the breakdown (initial) roller pass?

- ☐ A To provide final surface texture and remove roller marks
- ☒ B To achieve the primary density of the mat immediately behind the paver while the mix is still hot and workable
- ☐ C To cool the mat so traffic can be allowed on it sooner
- ☐ D To mark the longitudinal joint for the next pass

ANSWER B

WHY The breakdown (or initial) roller pass, typically with a vibratory steel-wheel roller, is applied directly behind the paver while the asphalt is at its hottest. Its job is to obtain the principal density of the mat. The intermediate and finish rollers refine density and surface texture (A); rolling does not cool the mat (C); and joint location is set by paver screed setup, not rolling (D).

QUESTION 9

SINGLE CHOICE

When forming a concrete curb, the contractor places control (contraction) joints at regular intervals primarily to:

- ☐ A Make the curb look uniform in color
- ☒ B Control the location of shrinkage cracking caused by drying and temperature changes
- ☐ C Increase the compressive strength of the concrete
- ☐ D Reduce the cost of form lumber

ANSWER B

WHY Control (contraction) joints are weakened planes created in freshly placed concrete so that shrinkage and temperature-induced cracking occurs at predetermined, controlled locations rather than randomly across the surface. They do not influence color (A), do not materially increase compressive strength (C), and are not a cost-savings measure for forms (D).