   - a. Fundamentals of Engineering exam
   - b. Transportation Engineering exam
   - c. Principles and Practice of Engineering exam
   - d. Both the Fundamentals of Engineering and Principles and Practice of Engineering exams

2. Which Transportation Research Board committee is responsible for development and maintenance of the HCM?
   - a. Freeway Operations
   - b. Traffic Flow Theory and Characteristics
   - c. Operational Effects of Geometrics
   - d. Highway Capacity and Quality of Service

3. What year was the first HCM published?
   - a. 1950
   - b. 1965
   - c. 1985
   - d. 2000

4. The HCM 6th Edition revisions include ______________.
   - a. New title
   - b. Multiple performance measures
   - c. Travel time reliability and ATDM
   - d. Alternative intersection service measure
   - e. Managed lane analysis
   - f. All of the above

5. HCM 6th Edition Volume 4 is available only to those with a personal copy of the HCM.
   - a. True
   - b. False

6. Freeway Reliability Analysis incorporates ______________.
   - a. Demand variation
   - b. Weather events
   - c. Incident events
   - d. Work zone activity
   - e. Special event effects
   - f. All of the above

7. CAF stands for ______________.
   - a. Calibration adjustment factor
   - b. Calibration advisory factor
   - c. Capacity adjustment factor
   - d. Construction adjustment factor
   - e. Capacity advisory factor

8. The breakpoint value for a multilane highway segment in the unified speed-flow equation is ____________.
   - a. 1200 pc/h/ln
   - b. 1400 pc/h/ln
   - c. 1600 pc/h/ln
   - d. a function of other parameter values

9. For multilane highways, the density at capacity equals ____________.
   - a. 35 pc/mi/ln
   - b. 40 pc/mi/ln
   - c. 45 pc/mi/ln
   - d. 50 pc/mi/ln

10. For a basic freeway segment, the maximum density at level of service (LOS) B is ____________.
    - a. 11 pc/mi/ln
11. Driver population factor $f_p$ is ____________.
   ○ a. an important factor in the analysis flow rate equation
   ○ b. no longer included in the analysis flow rate equation
   ○ c. is the passenger car equivalent flow rate
   ○ d. is no longer determined by the speed and capacity adjustment factors

12. PHF stands for ____________.
   ○ a. peak heavy factor
   ○ b. performance hour feature
   ○ c. peak hour factor
   ○ d. preliminary hour factor

13. Heavy vehicle Passenger Car Equivalent (PCE) values have changed in the HCM 6th edition.
   ○ a. True
   ○ b. False

14. The PCE methodology for the mountainous terrain category remains unchanged.
   ○ a. True
   ○ b. False

15. The ____________ model should be applied when trucks are likely to operate under sustained periods of crawl speed on a grade.
   ○ a. Mixed flow
   ○ b. Upgrade analysis
   ○ c. Truck analysis
   ○ d. Heavy vehicle analysis

16. Managed lane merge and diverge analysis procedures have been incorporated into HCM Chapter ________.
   ○ a. 12
   ○ b. 13
   ○ c. 14
   ○ d. 15
   ○ e. 16

17. Significant revisions were made to the two-lane highway analysis methodology in Chapter 15.
   ○ a. True
   ○ b. False

18. In order to better reflect real-world scenarios for urban street segments, LOS thresholds between A and B have been reduced to ____% of free-flow speed?
   ○ a. 60%
   ○ b. 75%
   ○ c. 80%
   ○ d. 85%

19. Improvements to urban street segments include ____________.
   ○ a. Capability to evaluate segments with mid-segment lane blockage
   ○ b. Procedure for predicting segment queue spillback time
   ○ c. A new adjustment factor for parking activity that affects free-flow speed estimation
   ○ d. Procedures for evaluating segments with roundabouts
   ○ e. all of the above

20. Right-turn-on-red vehicles are incorporated into the volume-balancing method for flows into and out of a segment.
   ○ a. True
   ○ b. False

21. The saturation flow adjustment factors for signalized intersections for heavy vehicles and grade are now broken down into several factors.
   ○ a. True
   ○ b. False

22. This aspect of the roundabout methodology has been updated.
   ○ a. follow up headway values
   ○ b. capacity values
   ○ c. gap acceptance values
   ○ d. lane utilization values

23. DDI is abbreviation for Diverging Diamond Interchange.
24. Choose the list that represents the intersection forms addressed in Chapter 23.
   - a. Displaced Left Turn, Restricted Crossing U-Turn, Diamond
   - b. Displaced Left Turn, Restricted Crossing U-Turn, Median U-Turn
   - c. Partial Cloverleaf, Median U-Turn, Diamond
   - d. Restricted Crossing U-Turn, Displaced Left Turn, Single Point Urban Interchange

25. The Transportation Research Board Committee overseeing the HCM does not officially endorse any particular software implementation of the HCM.
   - a. True
   - b. False