

Transportation Engineering

17 Questions 2 Marks Each = 34 Marks

16 Questions 1 Mark Each = 16 Marks

Total 50 Marks

1. The main objective of transportation is?
 - a) Economical transport of goods
 - b) Economical transport of passengers
 - c) To generate revenue
 - d) Safe economical and efficient transport of goods and passengers
2. Which is the most flexible type of transportation available?
 - a) Roadway
 - b) Railway
 - c) Waterway
 - d) Airway
3. The transportation system that requires a low initial investment among the following is?
 - a) Roadway
 - b) Railway
 - c) Harbour
 - d) Airport
4. The current highway development works in India are undertaken by?
 - a) NHAI
 - b) Govt. of India
 - c) State governments
 - d) NHDP
5. A research organization that was formed for the research and development organisation works related to roads was?
 - a) Indian Roads Congress
 - b) Central Research Institute
 - c) Central road found
 - d) NHAI

6. The first 20 year development plan is also called as?
- a) Nagpur road plan
 - b) Lucknow road plan
 - c) Bombay road plan
 - d) Delhi road plan
7. Primary system of roads consists of?
- a) National highway
 - b) Expressway
 - c) National highway and Expressway
 - d) State highway
8. The National Highway network should be expanded so that no part of a country is more than 50km away from NH is policy of which twenty year road development plan?
- a) 1st 20 year road development plan
 - b) 2nd 20 year road development plan
 - c) 3rd 20 year road development plan
 - d) 4th 20 year road development plan
9. The rectangular pattern of roads has been adopted in which Indian city?
- a) New Delhi
 - b) Chandigarh
 - c) Hyderabad
 - d) Mumbai
10. The equation of parabolic camber is given by _____
- a) $Y=x/a$
 - b) $Y=x^2/a$
 - c) $Y=x^3/a$
 - d) $Y=ax^2$
11. The minimum width of carriage way in urban roads is _____
- a) 2.5m
 - b) 3.0m
 - c) 3.5m
 - d) 3.75m

12. The desirable relationship between OSD and length of overtaking zone is _____
- a) Length of overtaking zone = OSD
 - b) Length of overtaking zone = 2 OSD
 - c) Length of overtaking zone = 3 OSD
 - d) Length of overtaking zone = 5 OSD
13. If the speed of overtaken vehicle is 80Kmph, then the design speed is _____
- a) 80kmph
 - b) 96kmph
 - c) 100kmph
 - d) 106kmph
14. If the speed of overtaken vehicle is 50kmph then spacing of vehicles is _____
- a) 10m
 - b) 12m
 - c) 14m
 - d) 16m
15. The relationship between SSD and ISD is?
- a) $SSD = ISD$
 - b) $SSD = 1.5 SSD$
 - c) $SSD = ISD + OSD$
 - d) $SSD = 2 ISD$
16. The super elevation is calculated for _____
- a) 75% of design speed including friction
 - b) 80% of design speed neglecting friction
 - c) 75% of design speed neglecting friction
 - d) 80% of design speed including friction
17. The ruling minimum radius in the curve is given by _____
- a) $R = V^2/127(e+f)$
 - b) $R = V'^2/127 (e+f)$
 - c) $R = 127(e+f)$
 - d) $R = 127/(e+f)$

18. The length of wheel base usually considered in India is?
- a) 6.1m
 - b) 5.9m
 - c) 5.8m
 - d) 5.5m
19. An intelligent driver who consumed alcohol will have a chance of _____
- a) Increased alertness
 - b) Increase in reaction time
 - c) Increase in speed
 - d) Increase in judgment
20. The height of the vehicle mainly influences?
- a) Width of pavement
 - b) Length of curve
 - c) Clearance under structures
 - d) Design velocity
21. The traffic volume is usually expressed in _____
- a) LMV
 - b) PCU
 - c) LCV
 - d) HCV
22. HCV stands for _____
- a) Heavy commercial vehicle
 - b) Heavy cash vehicle
 - c) Heavy consolidated vehicle
 - d) Hard commercial vehicle
23. What is the first objective of traffic volume studies?
- a) To decide priority for improvement of roads
 - b) For geometric design
 - c) For computing roadway capacity
 - d) To plan traffic operation

24. The traffic that is prepared based on 365 days of the year is called?
- a) Yearly traffic
 - b) Annual average daily traffic
 - c) Average daily traffic
 - d) Average yearly traffic
25. The traffic design in India is based on _____
- a) 10th hourly volume
 - b) 20th hourly volume
 - c) 30th hourly volume
 - d) 45th hourly volume
26. For places where there is a passage of flood water then the highway has to be built on _____
- a) Embankment
 - b) Subway
 - c) Overpass
 - d) Underpass
27. The highest CBR number is required for _____
- a) Pavement
 - b) Sub grade
 - c) Sub base
 - d) Base
28. Bitumen is a by-product of _____
- a) Wood
 - b) Petroleum
 - c) Kerosene
 - d) Coal
29. If the load value at 2.5mm penetration in CBR is 190kg and the load for 5.0mm penetration is 48kg, then the CBR value at 5 mm penetration is?
- a) 4.6
 - b) 4.4

c) 4.3

d) 4.1

30. Impact value is used to measure?

a) Hardness

b) Toughness

c) Wheel load

d) Strength

31. The capability of aggregate to resist more weathering action and wheel load is called _____

a) Hardness

b) Toughness

c) Durability

d) Angularity

32. The crushing value of the aggregate determines its _____

a) Hardness

b) Strength

c) Toughness

d) Durability

33. The bitumen is completely soluble in _____

a) Carbon monoxide

b) Carbon dioxide

c) Carbon sulfide

d) Carbon disulfide