1. What is the function of a clutch in a transmission system?
a) To change gear ratios
b) To transfer power from engine to transmission
c) To regulate vehicle speed
d) To control steering

Answer: b) To transfer power from engine to transmission
Explanation: A clutch in a transmission system is primarily responsible for engaging and disengaging the engine's power to the transmission, allowing for smooth shifting of gears and control over the vehicle's motion.

2. Which type of clutch uses multiple friction plates to transmit power?
a) Single plate clutch
b) Multi-plate clutch
c) Roller & spring clutch
d) Electromagnetic clutch

Answer: b) Multi-plate clutch
Explanation: A multi-plate clutch consists of multiple friction plates interleaved with steel plates. It provides greater surface area for power transmission compared to a single plate clutch.

3. What is the purpose of clutch lining and bonding?
a) To increase clutch weight
b) To reduce clutch noise
c) To provide friction surface for engagement
d) To improve fuel efficiency

Answer: c) To provide friction surface for engagement
Explanation: Clutch lining and bonding involve the attachment of friction material to the clutch plates, which enhances the grip between the clutch surfaces during engagement and disengagement.

4. What technique involves shifting to neutral between gear changes to match engine and transmission speeds?
a) Double declutching
b) Automatic shifting
c) Synchromesh shifting
d) Gear preloading

Answer: a) Double declutching
Explanation: Double declutching is a manual shifting technique where the driver shifts to neutral between gear changes, matching engine and transmission speeds before engaging the next gear.

5. Which component of a transmission system ensures smooth gear engagement by equalizing gear speeds?
a) Gearbox
b) Synchronizer
c) Clutch
d) Propeller shaft

Answer: b) Synchronizer
Explanation: A synchronizer, also known as a synchromesh mechanism, equalizes the speeds of gears before engagement, enabling smooth shifting without grinding or damage to the

transmission components.

6. What are gear materials typically made of to ensure durability and strength?
a) Plastic
b) Aluminum
c) Steel
d) Glass

Answer: c) Steel
Explanation: Gears are commonly made of steel or alloy steel to withstand the stresses and loads encountered during operation, ensuring durability and strength.

7. How is the gear ratio for vehicles determined?
a) By engine size
b) By tire diameter
c) By dividing the number of teeth on the driven gear by the number of teeth on the driving gear
d) By vehicle weight

Answer: c) By dividing the number of teeth on the driven gear by the number of teeth on the driving gear
Explanation: The gear ratio is determined by the ratio of the number of teeth on the driven gear to the number of teeth on the driving gear, which affects the rotational speed and torque applied to the wheels.

8. What component of a transmission system adjusts gear ratios automatically based on vehicle speed and engine load?

a) Gearbox
b) Differential gear box
c) Torque converter
d) Automatic transmission

Answer: d) Automatic transmission
Explanation: An automatic transmission adjusts gear ratios automatically, allowing the vehicle to shift gears without manual intervention based on factors such as vehicle speed and engine load.

9. What is the principle behind torque converters in automatic transmissions?
a) Hydraulic fluid pressure
b) Electromagnetic induction
c) Mechanical linkage
d) Fluid coupling

Answer: d) Fluid coupling
Explanation: Torque converters utilize fluid coupling to transmit power from the engine to the transmission, allowing for smooth engagement and torque multiplication, especially during low-speed operation.

10. What is the function of a differential gear box in a vehicle’s drivetrain?
a) To connect the engine to the transmission
b) To adjust gear ratios
c) To transfer power to the wheels while allowing them to rotate at different speeds
d) To provide hydraulic pressure for gear shifting

Answer: c) To transfer power to the wheels while allowing them to rotate at different speeds
Explanation: A differential gear box allows the wheels to rotate at different speeds while transferring power from the transmission to the wheels, ensuring smooth turning and traction on varying road surfaces.

## Related posts:

1. Steam generators and boilers MCQs
2. Vapour Cycles MCQs
3. Gas Dynamics MCQs
4. Air Compressors MCQs
5. Nozzles and Condensers MCQs
6. Introduction to stress in machine component MCQs
7. Shafts MCQS
8. Springs MCQs
9. Brakes & Clutches MCQs
10. Journal Bearing MCQs
11. Energy transfer in turbo machines MCQs
12. Steam turbines MCQs
13. Water turbines MCQs
14. Rotary Fans, Blowers and Compressors MCQs
15. Power transmitting turbo machines MCQs
16. Energy transfer in turbo machines MCQs
17. Steam turbines MCQs
18. Water turbines MCQS
19. Rotary Fans, Blowers and Compressors MCQs
20. Power transmitting turbo machines MCQs

21. Introduction to Computer Engineering MCQs
22. Types of Analysis MCQS
23. Heat Transfer and Conduction MCQs
24. Extended Surfaces (fins) MCQs
25. Convection MCQs
26. Thermal and Mass Transfer MCQs
27. Thermal Radiation & Boiling/Condensation MCQs
28. Mechanical processes MCQs
29. Electrochemical and chemical metal removal processes MCQs
30. Thermal metal removal processes MCQs
31. Rapid prototyping fabrication methods MCQs
32. Technologies of micro fabrication MCQs
33. Power Plant Engineering MCQs
34. Fossil fuel steam stations MCQs
35. Nuclear Power Station MCQs
36. Hydro-Power Station MCQs
37. Power Station Economics MCQs
38. Design of Belt, Rope and Chain Drives MCQS
39. Spur and Helical Gears MCQs
40. Bevel Gears MCQs
41. Design of I.C. Engine Components MCQs
42. Linear system and distribution models MCQs
43. Supply chain (SCM) MCQs
44. Inventory models MCQs
45. Queueing Theory & Game Theory MCQs
46. Project Management & Meta-heuristics MCQs
47. Overview of Systems Engineering MCQS

48. Structure of Complex Systems MCQs
49. Concept Development and Exploration MCQs
50. Engineering Development MCQs
51. Basic Concepts & Laws of Thermodynamics MCQs
52. Properties of Steam MCQs
53. Air standard cycles MCQS
54. Fuels & combustion MCQs
55. Materials Science MCQs
56. Alloys and Materials MCQs
57. Metal Heat Treatment MCQs
58. Material Testing and Properties MCQs
59. Chemical Analysis of Metal Alloys MCQs
60. Stress and strain MCQs
61. Bending MCQs
62. Torsion in shafts MCQs
63. Theories of failures MCQs
64. Columns & struts MCQs
65. Manufacturing Process MCQs