SET3

Program: BE Mechanical Engineering

Curriculum Scheme: Revised 2012

Examination: Final Year Semester VIII

**Course Code: MEE8026 & Course Name: Automobile Engineering**

Time: 1hour Max. Marks: 50

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Note to the students: - All the Questions are compulsory and carry equal marks.

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| Q1.  | What is the need of the universal joint? |
| Option A: | To change inclination |
| Option B: | To bend sideways |
| Option C: | To transfer torque at an angle |
| Option D:  | To change length |
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| Q2. | Where is the differential located? |
| Option A: | Between transmission and rear axle |
| Option B: | Between engine and transmission |
| Option C: |  Between two propeller shaft |
| Option D: |  Between steering wheel and steering column |
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| Q3. | The following is not a part of driving axle unit |
| Option A: |  Propeller shaft |
| Option B: |  Final drive |
| Option C: | Differential |
| Option D: |  Half shafts |
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| Q4. | In a disc brake, which component provides the pad-to-disc adjustment? |
| Option A: | Bleed screw |
| Option B: |  Piston |
| Option C: |  Caliper |
| Option D: |  Piston seal |
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| Q5. | What is the purpose of the reciprocating ball type steering gear? |
| Option A: |  To reduce the operating cost |
| Option B: | To reduce the number of parts |
| Option C: |  To reduce the operating friction |
| Option D:  | To reduce the toe-out during the turns |
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| Q6. | What is a condition called when the vehicle will try to move away from its normal direction and to keep it on the right path there is need to steer a little? |
| Option A: | Understeer |
| Option B: |  Oversteer |
| Option C: | Reversibility |
| Option D:  |  Irreversibility |
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| Q7.  | The force which retards the motion of one body, in contact with another body is called |
| Option A: |  Friction |
| Option B: |  Adhesion |
| Option C: | Cohesion |
| Option D:  |  Torsion |
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| Q8.  | What is the angle between the vertical when the top of the wheel slants outward? |
| Option A: | Negative camber |
| Option B: |  Negative castor |
| Option C: |  Positive camber |
| Option D:  | Positive castor |
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| Q9. | What do the permissible of mixing cross-ply and radial-ply automobile tires allow? |
| Option A: | Cross-ply tires on left wheels |
| Option B: | Cross-ply tires on right wheels |
| Option C: |  Cross-ply tires on front wheels |
| Option D:  | Cross-ply tires on rear wheels |
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| Q10.  | The following represents the correct specification of a tyre |
| Option A: | 155-80-R-13 |
| Option B: |  R-155-80-13 |
| Option C: | 155-80-13-R |
| Option D:  |  155-R-80-13 |
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| Q11.  | A combination of roll and pitch is called |
| Option A: |  circular pitch |
| Option B: | lateral pitch |
| Option C: |  transverse pitch |
| Option D:  | diagonal pitch |
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| Q12.  | Where will an overinflated tire wear the thread most? |
| Option A: | Near center |
| Option B: |  Near the edge |
| Option C: |  In the cross direction |
| Option D: | In the lateral direction |
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| Q13. | Which of the following problem naturally occurs around the battery? |
| Option A: | Corrosion |
| Option B: | Scaling |
| Option C: | Pore formation |
| Option D:  | Rust |
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| Q14.  | What do batteries emit while charging? |
| Option A: |  Nitrogen |
| Option B: |  Oxygen |
| Option C: | Hydrogen |
| Option D:  | Carbon |
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| Q15. | What is the material of an alternator frame? |
| Option A: | Cast iron |
| Option B: |  Brass |
| Option C: | Copper |
| Option D:  |  Aluminum |
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| Q16.  | What is the number of positive plates in a battery cell? |
| Option A: | One more than the negative plates |
| Option B: |  Two less than the negative plates |
| Option C: | One less than the negative plates |
| Option D:  | Two more than the negative plates |
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| Q17. | Which of the following is the advantage of alkaline battery? |
| Option A: | High energy density |
| Option B: |  Good discharge characteristics over a wide range of temperature |
| Option C: | The specific gravity of electrolyte remains the same |
| Option D: |  Cheap raw materials are used |
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| Q18. | The chassis frame of vehicles is narrow at the front, because |
| Option A: |  It gives smaller turning radius to the vehicle |
| Option B: |  Number of tyres is less at the front |
| Option C: | Weight of the vehicle is less at the front |
| Option D:  | It helps to reduce the weight of the frame |
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| Q19.  | The aluminium alloy is used in cylinder blocks because |
| Option A: | it is lighter and have good heat dissipation characteristics |
| Option B: | material cost is low |
| Option C: | it does not require any cylinder liners |
| Option D:  | the piston is also made of aluminium alloy |
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| Q20. | Which of the following is the most important property of the lubricant? |
| Option A: | Density |
| Option B: | Thermal conductivity |
| Option C: | Viscosity |
| Option D: | Melting point |
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| Q21. | Which is not a part of an automobile chassis?  |
| Option A: | Seat |
| Option B: | Engine |
| Option C: | Brake  |
| Option D:  | Steering |
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| Q22.  | power plant is used in automobile |
| Option A: | IC Engine |
| Option B: | Automatic Plant |
| Option C: | Automatic power |
| Option D:  | Thermal cum Automobile |
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| Q23. | A control system with excessive noise, is likely to suffer from |
| Option A: | Saturation in amplifying stages |
| Option B: | Vibrations |
| Option C: | Oscillations |
| Option D:  | Vibration and Oscillation |
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| Q24.  | The information provided by the oxygen (O2) sensor to the feedback control system is about the |
| Option A: | air-fuel ratio |
| Option B: | air temperature |
| Option C: | air flow speed |
| Option D:  | exhaust gas volume |
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| Q25. | The major purpose of an electronically-controlled automatic transmission is that this type of transmission |
| Option A: | eliminates gear clutches |
| Option B: | eliminates the gear shift lever |
| Option C: | reduces the number of automatic-transmission components |
| Option D:  | reduces shift shock and achieves more efficient transmission of engine torque |