

*Module III: Energy & Environmental Services*

Question Bank : Lesson 6: Electrical Services – IC Engines, Pumps, motors

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*Q1 :* ***Automotive engines change ------ energy of the fuel into ------- energy and finally into -------- energy (Fill in the blanks)***

*Answer : Automotive engines change* ***chemical*** *energy of the fuel into heat energy and finally into mechanical energy*

*Q2. Give one application example of following engine types :*

1. *Diesel engine*
2. *Petrol engine*
3. *External Combustion engine*

*Answer : Diesel engine – Diesel Car*

*Petrol engine : petrol car or motor bike*

*External Combustion engine : Steam engine*

*Q3 In which type of engine fuel is burnt outside the engine (Select all that apply)*

1. *Diesel engine*
2. *Internal combustion engine*
3. *Petrol engine*
4. *External combustion engine*

*Answer : D*

*Q4. List the four stroke names of the petrol engine in sequence*

*Answer :*

1. *Induction*
2. *Compression*
3. *Power*
4. *Exhaust*

*Answer : C*

*Q5.* ***Which of the following statements are true in case of diesel engines***

1. ***In diesel engine fuel is mixed with air, compressed by pistons and ignited by sparks from spark plugs***
2. ***Diesel engine uses only air compression to ignite its fuel.***
3. ***Fuel efficiency of the diesel engine is better than petrol engine***
4. ***Diesel engines are used in racing cars***

***Answer : B, C***

*Q6. In two stroke engine there are* ***2 stroke in one*** *revolution and hence the engine is called 2 – stroke engine (True or false?)*

*Answer : True*

*Q7 ......... is the unit of pressure (Fill in the blank)*

*Answer : PSI (pounds per square inch)*

*Q8 which of the following are parts of the centrifugal pump? (Select multiple)*

1. *Shaft*
2. *Motor*
3. *Crankshaft*
4. *Piston*
5. *Impeller*

*Answer : ABE*

*Q9. Discharge pipe is the pipe through which water is lifted to the pump level. (True or false)*

*Answer : False*

*Q10 ......... is used in the bottom of the suction pipe to prevent solid matters entering into the suction pipe*

*Answer : Strainer*

*Q11. ......... valve facilitates to hold the primed water in the suction pipe and casing before starting the pump*

*Answer : Foot valve*

*Q12. ........is the process in which the impeller of a centrifugal pump will get fully sub merged in liquid without any air trap inside.*

*Answer : Priming*

*Q13. Priming of a pump is very essential step in start up of a centrifugal pump.  (True or false?)*

*Answer : True*

*Q14. The basic fundamental law of all magnets is that Opposite* ***pole repel and*** *likes* ***attract****. (True or false?)*

*Answer : False*

*Q15.* ***Fleming Left Hand rule*** *is for electric motors and show the direction of the three parameters 1. ........ 2............ 3.......... (Fill in the blanks)*

*Answer :* [*magnetic field*](http://www.electrical4u.com/what-is-magnetic-field/)*, current, force (any order is fine)*

*Q16. Three phase AC induction motor is used in applications like : (Select multiple from the below options)*

1. *Washing machine*
2. *Mixers*
3. *Textile mills*
4. *Paper Mills*

*Answer : CD*

*Q17. In AC motors the stationary electrical part is known as ......... and rotating electrical component is known as .......... (Fill in the blanks)*

***Answer :*** *In AC motors the stationary electrical part is known as .****Stator.*** *and rotating electrical component is known as ..Rotar...*

*Q18. Which part of the DC motor is responsible to reverse the current each half revolution to keep the torque turning the coil in the same direction?..... (Name the part?)*

***Answer : commutator***

*Q19. Which device is used to decrease the current at starting time and increase current after starting the motor . This device is connected in series with motor. .......(Name the device?)*

*Answer : Starter*