

***** EXAMINATION *****

BURNING BEHAVIOR OF SELECTED AUTOMOTIVE PARTS FROM A MINIVAN

1. **Something that easily burns or ignites causing fire or**
 - a) combustion defines the flammability
 - b) combustion defines the conductivity
 - c) combustion defines the emissitivity
 - d) combustion defines the capability

2. **A macromolecule composed of a repeating structural unit**
 - a) connected by covalent chemical bonds is a monomer
 - b) connected by covalent chemical bonds is a polymer
 - c) connected by covalent chemical bonds is an isomer
 - d) connected by covalent chemical bonds is stereoisomer

3. **The stability of a molecule at high temperatures is**
 - a) thermal flammability
 - b) thermal conductivity
 - c) thermal stability
 - d) thermal flexibility

4. **Lightly cross-linked thermoset polymers can exhibit the**
 - a) same type of thermal degradation in a fluid spillage
 - b) same type of thermal degradation in a fluid transfer
 - c) same type of thermal degradation in a fluid heat
 - d) same type of thermal degradation in a fluid melt

5. **The thermal stability of a polymer is one significant**
 - a) measure of its flammability
 - b) measure of its conductivity
 - c) measure of its stability
 - d) measure of its flexibility

6. **A branch of physical chemistry, materials research and**
 - a) thermal analysis is dilatometry
 - b) thermal analysis is thermomechanical analysis
 - c) thermal analysis is thermogravimetry
 - d) thermal analysis is dielectric thermal analysis

7. **A column of one fluid moving through another is a**
- a) pump
 - b) plume
 - c) rotating tank
 - d) soliton
8. **The amount that flows through a unit area per unit time is**
- a) a density
 - b) a pressure
 - c) a flux
 - d) a velocity
9. **Thermal flux is a flow of energy per unit of area per unit**
- a) of time is also called the heat flux
 - b) of time is also called the radiative flux
 - c) of time is also called the mass flux
 - d) of time is also called the energy flux
10. **The amount of energy moving in the form of photons is a**
- a) heat flux
 - b) radiative flux
 - c) mass flux
 - d) energy flux
11. **The property of a material that indicates its ability to**
- a) conduct heat is called a thermal flammability
 - b) conduct heat is called a thermal conductivity
 - c) conduct heat is called a thermal stability
 - d) conduct heat is called a thermal flexibility
12. **Polymer melt viscosity is a strong function of both molecular**
- a) weight which may be strongly reduced during conduction
 - b) weight which may be strongly reduced during emission
 - c) weight which may be strongly reduced during transition
 - d) weight which may be strongly reduced during degradation
13. **Three-carbon alkane, normally a gas, but compressible to a**
- a) transportable liquid is a methane
 - b) transportable liquid is a ethane
 - c) transportable liquid is a propane
 - d) transportable liquid is a butane
14. **The term used by engineers modeling heat transfers is**
- a) heat flux
 - b) heat influx
 - c) thermal inertia
 - d) thermal burst

15. **A substance containing free ions behaving as an**
- a) electrically conductive medium is an electrolyte
 - b) electrically conductive medium is a hydrolyte
 - c) electrically conductive medium is an acolyte
 - d) electrically conductive medium is an iolite
16. **A white solid that is crystalline but often appears as**
- a) a fine powder is the sodium carbonate
 - b) a fine powder is the sodium bicarbonate
 - c) a fine powder is the sodium formate
 - d) a fine powder is the sodium nitrate
17. **A thermoplastic substance that is a synthetic polymer of**
- a) propylene is polyethylene
 - b) propylene is polypropylene
 - c) propylene is polystyrene
 - d) propylene is polyvinyl chloride
18. **A measure of the resistance of a fluid which is being**
- a) deformed by shear stress is the viscosity
 - b) deformed by shear stress is the velocity
 - c) deformed by shear stress is the fluidity
 - d) deformed by shear stress is the density
19. **The place or hollow vessel where fluid is kept in reserve is**
- a) a fluid tank
 - b) a fluid pipe
 - c) a fluid reservoir
 - d) a fluid cylinder
20. **The central working part of a reciprocating engine, where**
- a) a piston travels is a carburetor
 - b) a piston travels is a cylinder
 - c) a piston travels is a crank shaft
 - d) a piston travels is a accelerator

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