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***** EXAMINATION *****

**EVALUATION OF FIRE MODELS FOR NUCLEAR
POWER PLANT APPLICATIONS: CABLE TRAY FIRES**

1. **The amount of energy moving in the form of photons is**
 - a) the radiative flux
 - b) the energy flux
 - c) the momentum flux
 - d) the heat flux

2. **The holding up and distribution of cables are done by**
 - a) cable magnets
 - b) cable trays
 - c) cable reels
 - d) cable modems

3. **Block-structured means that all blocks of the computational**
 - a) domain have to be designed with a heptahedral shape
 - b) domain have to be designed with a octahedral shape
 - c) domain have to be designed with a hexahedral shape
 - d) domain have to be designed with a tetrahedral shape

4. **Transfer of thermal energy between nearby molecules in a**
 - a) matter due to a temperature gradient is a heat conduction
 - b) matter due to a temperature gradient is a heat flux
 - c) matter due to a temperature gradient is thermal radiation
 - d) matter due to a temperature gradient is a thermal inertia

5. **A mechanism of heat transfer occurring because of bulk**
 - a) motion of fluids is the thermal radiation
 - b) motion of fluids is the heat conduction
 - c) motion of fluids is the thermal insulation
 - d) motion of fluids is the convective heat transfer

6. **A fluid regime characterized by chaotic, stochastic property**
 - a) changes is turbulence
 - b) changes is distortion
 - c) changes is degradation
 - d) changes is radiation

7. **The flow interaction between different zones is described by**
- a) the zone models
 - b) the junction models
 - c) the structure objects
 - d) the safety systems
8. **The heat exchange between a structure and their assigned zones**
- a) is calculated via convection
 - b) is calculated via condensation
 - c) is calculated via radiation heat transfer correlation
 - d) All of the above
9. **For an adequate simulation of the different systems, specific**
- a) junction models are implemented like rupture discs
 - b) junction models are implemented like atmospheric valves
 - c) junction models are implemented like flaps/doors
 - d) All of the above
10. **The suspension of fine solid particles or liquid droplets in**
- a) a gas is technically an aerosol
 - b) a gas is technically an emulsion
 - c) a gas is technically a Tyndall effect
 - d) a gas is technically a sol
11. **The atomic nucleus characterized by its specific**
- a) constitution is a hydrogen-3
 - b) constitution is a nuclide
 - c) constitution is a helium-3
 - d) constitution is a photon
12. **The chemical decomposition of a condensed substance by**
- a) heating is called hydrolysis
 - b) heating is called prolepsis
 - c) heating is called pyrolysis
 - d) heating is called radiolysis
13. **Any point on a circuit where two or more circuit elements**
- a) meet is a junction
 - b) meet is a tray
 - c) meet is a neutral wire
 - d) meet is a node
14. **The materials ability to radiate absorbed energy can be**
- a) measured by the material's emissitivity
 - b) measured by the material's reflectivity
 - c) measured by the material's absorptivity
 - d) measured by the material's conductivity

15. **The third most widely used thermoplastic polymer**
- a) is polyethylene
 - b) is polypropylene
 - c) is polyvinyl chloride
 - d) is polyacrylonitrile
16. **A complex sequence of exothermic chemical reactions between**
- a) a fuel and an oxidant accompanied by heat is heat flux
 - b) a fuel and an oxidant accompanied by heat is combustion
 - c) a fuel and an oxidant accompanied by heat is hydrolysis
 - d) a fuel and an oxidant accompanied by heat is emulsion
17. **Analysis that identifies what basis of uncertainty weighs**
- a) more on a papers conclusion is the sensitivity analysis
 - b) more on a papers conclusion is the reflectivity analysis
 - c) more on a papers conclusion is the conductivity analysis
 - d) more on a papers conclusion is the emissitivity analysis
18. **The movement of an air in and out of an enclosed space**
- a) is known as radiation
 - b) is known as transmission
 - c) is known as ventilation
 - d) is known as conduction
19. **The impure carbon particles resulting from the incomplete**
- a) combustion of a hydrocarbon is an ash
 - b) combustion of a hydrocarbon is a soot
 - c) combustion of a hydrocarbon is a particle beam
 - d) combustion of a hydrocarbon is a rust
20. **Heat transfer can be calculated by phase change between a**
- a) fluid and a solid using the heat flux coefficient
 - b) fluid and a solid using the heat emissitivity
 - c) fluid and a solid using the heat radiation coefficient
 - d) fluid and a solid using the heat transfer coefficient

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