

Final Exam. Of petrochemical & Petroleum Additives (219CH) for All groups Studants 2nd level.

Part (B): Select the more correct answer from the following: (2x40 = 80 MarkS):

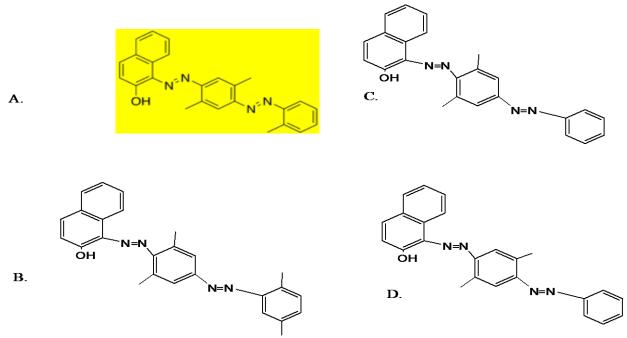
1- Fuel additives are organic substances soluble	in fuels added in very small concentrations				
fromto improve its quality.					
A. Several gram to several thousand grams.	C .2 % .				
B. Several ppm to several thousands ppm	D. Several Kg to 10 Kgs				
2- What are the main constituents of natural gas?					
A. CO ₂	C. CH ₃ -CH ₃				
B. CH ₄	<mark>D. (B&C)</mark>				
3- Crude oil is					
A. Composed of just a few types of hydrocarbon mo	lecules				
B. Formed less than 100 yards below the surface; in	deeper places with more pressure, coal is formed				
C. Formed in a wide range of temperature and press	sure circumstances				
D. <mark>fractionated to obtain the chemicals used for gas</mark>	oline, lubricants, plastics and other products				
4- Which of the following substances is used as	Cold flow improver in diesel oil?				
A. TNT	C. EGMME				
B. <mark>EVA</mark>	D. MTBE				
5- Which of the following is sulphur compound	I.				
A. Isopropyl mercaptan	C. Pyridine				
B. Napthenic acid	D. Cumene				
6- Which of the following is nitrogen compoun					
A. <mark>Quinolin</mark>	C. Ethyl mercaptans				
B. Naphthenic acid	D. Tetra ethyl lead				
7- Naphthenes are					
A. Unsaturated cyclic compounds	C. Straight chain saturated compound				
B. Saturated cyclic compound	D. paraffins have the same general				
formula CnH2n+2 8- Which of the following hydrocarbon series are almost absent in crude petroleum?					
A. Paraffins	C. Naphthenes				
B. Aromatic	D. Olefins				
9- Which of the hydrocarbon are the most un					
A. Paraffins C. isoparaffins					
B. Aromatic	D. Cyclo-alkane				
10- Which of the following petroleum products has minimum flash point?					
A. Gasoline C. Biodiesel					

11- Which of the following additives has a minimum effect on octane number in gasoline composition ?

A. n	- paraffin	C. Iso-paraffin		
B. A	romatic	<mark>D. none of these</mark>		
12- The most popular antiknocking agent but not environmental eco-friendly is				
A. C ₂ H ₅ -OH		C. TEL		
B. $Pb_4C_2H_5$		D. MTBE		
13- Which of the following hydrocarbon are most desirable in gasoline?				
A. Paraffins		C. <mark>Isoparaffins</mark>		
B. Naphthenes		D. Aromatic		
14- Cetane no of $lpha$ -methyl naphthalene is				
A. 15		C. 100		
<mark>B. zero</mark>		D. 17		
15- The chemical structure of DEGMME is				
A. Me-OCH ₂ -CH ₂ -OH		C. H-OCH ₂ -CH ₂ -O-CH ₃		
B. $HO-CH_2-CH_2-O-CH_2 CH_2-OH$		D. All False		
16. Ethylene glycol added to gasoilne where, it acts as anagent.				
A.	Anti-knocking	C. Anti-icing		
В.	Anti-gum forming	D. Dewaxing		
17- PISI is the diesel additive which used as				
Α.	Anti-gum	C. Anti-Icing		
В.	Deposit Control additives	D. Cold flow improver		
18- (FM) is the fraction modifiers used in fuel are intended to reduce power loss from friction in				
internal combustion engins, is the most powerful additive to reduced the frictions:				
A. Glycine dioleate		C. Glycerol dioleate		

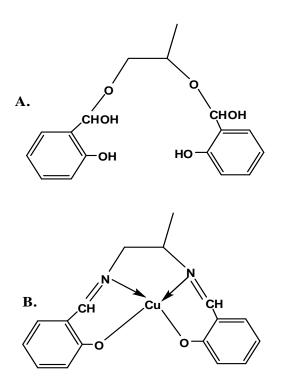
B. Glycerol mono-oleate D. Glycine mono-oleate

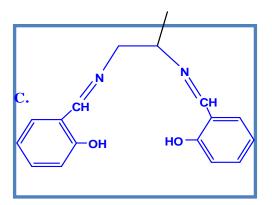
19- The chemical structure of Solvent red 26 is



20- Metal deactivator which prevent the reduced the oxidation stability of gasoline, the

most one used





D. B&C

21- The purpose of lubrication is

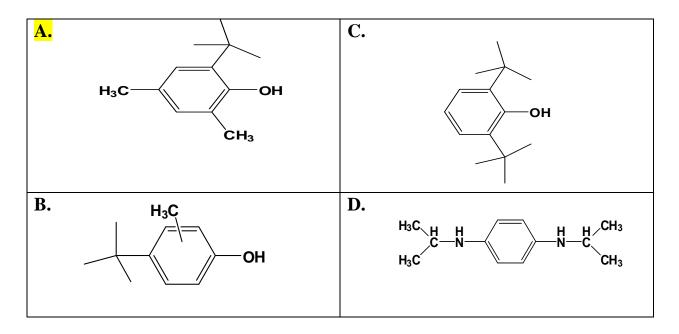
A. To reduce friction.

- B. To reduce wear.
- C. Transfer heat produced.
- D. All of above.

22-Viscosity index of a lubricating oil

- A. should be low.
- B. none of these.
- C. is the measure of variation of viscosity with temperature.
- D. is the measure of its flash point.

23- The structure formula for BHT is :



24- Can be used as metal deactivator for lubricant

- A. bis-di-salcylidine 1,2-propanediamine
- B. Benzotriazole

C. Tetrahydrofuran

D. EG

25-is used as a raw material for manufacture of fertilizer urea. B. Ammonia C. Methane D. Butadiene A. Benzene 26- Cumene is main petrochemical produced from B. Acetylene C. Butane D. None of them A. Propylene 27- $CH_4 + O_2$ **→** A . CH_2O_2 B. CH₃OH $C \cdot CH_3 - O - CH_3$ D. No product 28- The property of reducing friction is known as A. Lubricity B. Frictionty C. Viscosity D. Hydric stability 29- Synthesis gas is a mixture of A. CO/H_2 B. CO_2/H_2 C. H_2O/CO D. No One 30- CH₄ $CH_3Cl \longrightarrow CH_3OH$ Methyl alcohol is refered to..... as petrochemicals. A. Primary B. Secondary C. Down stream D. Both a&c 31- Methane is the major hydrocarbon of A. NG B. CN C.LN D. L G 32- is a fraction obtained during refining of petroleum. A. Naphtha B. Toluene C. Reformed naphtha D. Ethyne 33- Petroleum is exist as solids in the form of oil...... A. Crude B. Shales C. Gas D. Diesel 34-is a complex mixture of hydrocarbons formed by the decomposition of fossil remains. A. Petroleum **B.** Petrochemicals C. Detergent D. Naphtha 35-The process that convert higher hydrocarbon to smaller gaseous hydrocarbons is... C. Cracking A. Heating **B.** Oxidation D. Refining 36- The major petrochemicals produced from ethylene :

A. Vinyl Chloride	B. Polyethylene	C. Ethylene Oxide	D <mark>. All of them</mark>			
37The starting material used for the production of petrochemicals.						
A. L P G	B. Pentane	C. Xylene	D.Feedstock			
38 on polymerization give BUNA-S						
A. Butadiene	B. Isopropyl benzene	C. Styrene	D. Both a&c			
39- One of the most common feedstock is						
A. synthetic fiber B. synthetic rubber C. synthetic detergent D. NG						
40- DDT is						
A. Dichlorodiphen trichloromethan		yl C. Dichlorodipheny trichloropropa				