



1 MARK QUESTION BANK



1. What is the primary component of crude oil?
a) Sulfur
b) **Carbon**
c) Hydrogen
d) Nitrogen
2. How is crude oil separated?
a) Crystallization
b) **Fractional distillation**
c) Decantation
d) Sublimation
3. What type of gas is LPG?
a) Gasoline
b) Kerosene
c) **Uncondensed**
d) Heavy oil
4. What is the boiling temperature of petrol?
a) 40-120°C
b) **120-180°C**
c) 180-250°C
d) 250-320°C
5. Which fuel/oil is used for obtaining gasoline through cracking process?
a) Kerosene
b) Diesel
c) **Heavy**
d) Naphtha
6. Which of the following is not used as a lubricant?
a) Lubricating oil
b) Grease
c) **Asphalt**
d) Petroleum jelly
7. What is the function of petroleum coke?
a) Lubrication
b) In candles
c) **As fuel**
d) As solvent
8. Removal of water is done by _____
a) Orsted's process
b) Kjeldahl's process
c) Filtration
d) **Cottrell's process**
9. Crude oil is in the form of _____



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- a) **emulsion of oil and brine** b) emulsion of oil and impurities
c) emulsion of brine and impurities d) emulsion of impurities and moisture
10. To remove sulphur compounds from petroleum, it is treated with _____
a) copper nitrate **b) copper oxide**
c) magnesium chloride d) sodium chloride
11. The scales formed during the removal of harmful impurities can be removed by _____
a) electrolysis b) electroplating
c) electrotyping **d) dehydration**
12. During refining the petroleum, in fractional distillation, what is the temperature in still?
a) 800°C **b) 400°C**
c) 300°C d) 100°C
13. Which of the following fraction obtained on distillation used in dry cleaning?
a) petroleum ether b) heavy oil
c) gas oil **d) naphtha**
14. What is the catalyst used in catalytic polymerization?
a) Phosphoric acid b) Al_2O_3
c) $Al_2(SiO_3)_3$ d) Zirconium oxide
15. Heavy oil on re-refractionation produces _____
a) Asphalt b) diesel oil
c) grease d) kerosene oil
16. In liquid phase thermal cracking, the yield of petrol is _____
a) 50%-60% b) 60%-70%
c) 70%-80% d) 80%-90%



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- c) The axis can be either eccentric or concentric depending upon speed d) All of the above
40. For hydrodynamic lubrication
- a) **There should be relative motion between the surfaces of the journal and the bearing and wedge shaped clearance space** b) There should be external source like pump to supply lubricant under pressure
- c) There should be elastic deformation of the parts in contact d) There should be metal to metal contact
41. For hydrostatic lubrication
- a) There should be relative motion between the surfaces of the journal and the bearing and wedge shaped clearance space **b) There should be external source like pump to supply lubricant under pressure**
- c) There should be elastic deformation of the parts in contact d) There should be metal to metal contact
42. For elasto-hydrodynamic lubrication
- a) There should be relative motion between the surfaces of the journal and the bearing and wedge shaped clearance space b) There should be external source like pump to supply lubricant under pressure
- c) **There should be elastic deformation of the parts in contact** d) There should be metal to metal contact
43. In Petroff's equation, it assumed that the lubricant film is
- a) Converging b) Diverging
- c) **Uniform** d) Converging diverging
44. A thick film bearing is a bearing
- a) **Where the surfaces of journal and the bearing are completely separated by a film of lubricant** b) Where the surfaces of journal and the bearing are partially separated by a film of lubricant and there is partial metal to metal contact
- c) Where the surfaces of journal and the bearing are separated by a film created by elastic deflection of parts d) Where there is no lubricant
45. In hydrodynamic bearing,



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- a) **The axis of journal is eccentric with respect to axis of bearing** b) The axis of journal is concentric with respect to axis of bearing
c) The axis can be either eccentric or concentric depending upon speed d) All of the above
46. The property of the bearing material to yield and adopt its shape to that of journal is called
a) Embeddability **b) Conformability**
c) Viscosity d) Endurance limit stress
47. When the bearing is subjected to fluctuating or impact load the bearing characteristic number should be _____ times its minimum value
a) 5 times b) 10 times
c) 15 times d) 20 times
48. As compared with oil with VI=80, a lubricating oil with VI=90
a) Has more viscosity b) Has less viscosity
c) Has more rate of change of viscosity with respect to temperature **d) Has less rate of change of viscosity with respect to temperature**
49. Thick film lubrication describes a phenomenon where two surfaces are _____ separated.
a) Completely b) Partially
c) Not d) Fewly
50. A journal bearing is a _____ contact bearing working on the hydrodynamic lubrication and which supports load in _____ direction.
a) Sliding, Axial b) Rolling, Radial
c) Sliding, Radial d) Rolling, Axial
51. When the load of bearing is carried by direct surface to surface contact is called
a) Full film condition b) Boundary condition
c) Dry condition d) All of the above
52. Hydrostatic bearing usually use _____ as lubricant



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- a) Oil
b) Grease
c) Fuel
d) All of the above
53. Hydrostatic bearing enters Hydrodynamic state when the journal is
a) Stationary
b) **Rotating**
c) Both A and B
d) None of the above
54. The lubrication in which load of bearing is carried solely by a film of fluid and there is no contact between the two bearings surface is called
a) **Full film condition**
b) Boundary condition
c) Dry condition
d) All of the above
55. A high temperature lubricants used may undergo _____
a) To reduce the operating cost
b) To reduce the number of parts
c) **To reduce the operating friction**
d) To reduce the toe-out during the turns
56. What is the angle between the vertical when the top of the wheel slants outward?
a) Negative camber
b) Negative castor
c) **Positive camber**
d) Positive castor
57. Find the value of pivot center distance if the angle of inside lock is 40° and the angle of the outside lock is 35° and the wheelbase is 5.5 m
a) **1.3 m**
b) 8.5 m
c) 6.5 m
d) 3.2 m
58. **Among the following, which is not the force acting on Kingpin Bearing**
a) Reaction force on Wheel
b) Load on lower knuckle bearing
c) **Load of Steering wheel**
d) Load on upper knuckle bearing
59. A high temperature lubricants used may undergo _____
a) vulcanization
b) **volatilization**
c) lubrication
d) combustion

