I.C.ENGINE

History and Development of I.C. Engine

Thermal efficiency of I.C. Engine is…… E.C. Engine

a)Greater than b)less than c)equal tod) None

1.Weight to power ratio is less in

a)E.C. Engine b) I.C. Engine c)both d)None

2. I.C. Engine is ……..acting.

a)Single b) Double c) both d) None

3. 4-stroke Diesel engine is an ……..

a)I.C. Engine b)E.C. Engine c)both d) None

4. I.C. Engine was made in the year……A.D.

a)1860 b) 1876 c) 1892 d) 1872

5. Dr. Rudolf Diesel made the first Diesel engine in the year……AD.

a)1860 b) 1876 c) 1872 d) 1888

6. Petrol engine is an example of which engine?

a)Spark ignition b) compression ignition c) both d) None

7. Deutz engine Model BF12L 513C fitted on Plasser BCM is

a) Air Cooled b)Water Cooled c)Both Air and Water d) Oil Cooled

8. Cummins Engines fitted on Track Machines are

a) Air Cooled b)Water Cooled c)Both Air and Water d) Oil Cooled

9. KTA 1150-L engine is

a) 6 cylinder b)12 cylinder c)8 cylinder d)18cylinder

10. Kirloskar HA-694 engine fitted on PQRS is a

a) 6 cylinder b)12 cylinder c)8 cylinder d)18cylinder

11. Deutz Engine Model BF 12L 513C is

a) 6 cylinder b)12 cylinder c)8 cylinder d)18cylinder

12. Total displacement volume in Cummins Engine Model NTA-855L is

a)855mm^3 b) 855cm^3 c)855$inch^3$ d) 855ft^3

13. In Cummins engine Model KTA 1150-L, the term used for application code is

a) K b) T c) A d) L

Question	Answer	Question	Answer
1	a	8	a
2	b	9	b
3	a	10	a
4	a	11	a
5	a	12	b
6	c	13	b
7	a	14	d

Constructional Details of ICE

1. Oil sump is made of……..

   a) Cast Iron b) Aluminium c) Forged steel d) Copper

2. In 4-stroke engines minimum……...Compression rings are used.

   a)0 b) 1 c) 2 d) 3

3. In 4-stroke engines minimum……...oil control rings are used.

   a)0 b) 1 c) 2 d) 3

4. Piston and connecting rods are connected by

   a)Circlip b) Rings c)Gudgeon pin d) bush

5. Piston pin and crankpin of crankshafts are joined by……..

   a)Gudgeon pin b) Connecting Rod c) piston d) Rings

6. Small end of connecting rod connects with……..

   a) Piston b) Gudgeon pin c) Crank pin d)Camshaft

7. Center to centre distance between the crankpin and main journal is ….of the piston strike.
   a)Same b) half c) twice d)quarter
8. No. of teeth on camshaft gear is…….that of the nos. of teeth on crankshaft gear.
   a) Half b) Same c) twice d) thrice

9. Speed of camshaft is……to that of crank shaft.
   a)Half b) Same c) twice d)thrice
10. In Cummins engine…….cams are on camshaft for each cylinder.
    a) 1 b) 2 c) 3 d) 0
11. Normally inlet valves are made of……
    a)Nickel chromium alloy steel b)Silicon Chromium alloy steel
    c) Both and b d) None of these
12. Normally exhaust valves are made of
    a)Nickel chromium alloy steel b)Silicon Chromium alloy steel
    c) Both a and b d) None of these
13. Normally valve face angle is
    a)0^0 b) 15^0 c) 45^0 d)90^0
14. Push rod is fitted in between…….and…….
    a)Cam and Tappet b)Adjusting screw and tappet
    c) Valve & Cam d) Valve and Tappet

15. Ratio of No. of teeth on crankshaft gear to the P.T. pump gear is
    a)1:1 b) 1:2 c) 1: ½ d) ½,:1

Question	Answer	Question	Answer
1	b	8	c
2	c	9	a
3	b	10	c
4	c	11	a
5	b	12	b
6	b	13	c
7	b	14	a
		15	a

Working Principle of ICE

1. The upper most extreme point beyond which piston cannot go in upward direction is called……..
   a)TDC b)BDC c) Clearance d) Stroke

2. The bottom most extreme point beyond which piston cannot go in downward direction is called ……
   a)TDC b) BDC c) Clearance d)stroke

3. The complete movement of piston from TDC to BDC or vice versa is called……..
   a)Stroke b) Stroke length c) clearance d) swept

4. The volume of cylinder above TDC is called……
   a)Clearance volume b)Swept Volume c) Stroke d) Bore

5. The volume of cylinder between TDC and BDC is called……..
   a)Clearance volume b)Swept Volume c)Stroke d) Bore

6. Diameter of engine cylinder is known as…….
   a)Bore b) Clearance volume c) Swept volume d) Stroke Length.

7. Inlet valve opens on……...Stroke
   a)Suction b) Compression c) Power d) Exhaust

8. Diesel is injected at the end of ……Stroke
   a)Suction b) Compression c) Power d) Exhaust

9. In four stroke Diesel engine at the end of compression stroke the pressure raises up to……bar.
   a)28 b) 180 c) 200 d) 300)

10. In 4-stroke Diesel engine at the end of compression stroke the temperature rises upto…….
    a)2500^0C b) 200^0C c) 250^0C d) 550^0C

11. Self ignition temp. of diesel is approximately……^{0}C
    a)550^0C b) 440^0C c) 2500^0C d) 200^0C

12. Both the valves remains closed in stroke……
    a)Suction b) Compression c) Power d) Exhaust

13. 4-stroke Petrol engine works on……..cycle
    a)Otto b) Diesel c) Carnot d) Dual

14. Piston moves from BDC to TDC in……stroke
    a)Suction b) Compression c) Power d)none of these

15. In 4-stroke petrol engines at the end of compression stroke pressure rises upto….bar
    a)28 b) 8-13 c) 200-300 d)14-20

16. Spark is given by the spark plug at the end of ……..Stroke
    a)Suction b) Compression c) Power d) exhaust.

17. Spark plug is an essential component of ……..… engine
a)Petrol b) Diesel c)both a & b d)none

18. Injector plug is an essential component of ……..… engine
a)Petrol b) Diesel c)both a & b d)none

Question	Answer	Question	Answer	Question	Answer
1	a	7	a	13	a
2	b	8	a	14	b
3	a	9	a	15	b
4	a	10	d	16	b
5	b	11	b	17	a
6	a	12	b	18	b

Combustion of Fuel

1. Specific gravity of high speed diesel is in the range of ……..… to
   a)0.82-0.92 b) 1.80-3.00 c) 4.5-5.00 d) 1.24-1.26
2. Minimum cetane No. of H.S.D. is ……..…
   a)30 b) 35 c) 45 d) 60
3. As on impurity …….sulphur is available in high speed diesel
   a)1% b) 0.5% c) 2% d) 3%
4. Incomplete combustion results in production of……
   a)CO b) CO_2 c) C d) H_2O
5. ….parts of carbon mono-oxide in 10,000 parts of air is dangerous to breathe
   a)1 b) 5 c) 15 d) 2
6. The time elapsed between the start of fuel injection and first appearance of flame is called…….
   a)Ignition delay b) Uncontrolled combustion c) Before burning d) After Burning
7. Rapid and uncontrolled combustion starts at the end of ……
   a) Ignition delay b) Controlled combustion c) After burning d) Combustion
8. Maximum pressure in the combustion chamber is reached in the stage of ……
   a)Ignition delay b) Rapid & uncontrolled combustion c) Controlled combustion d) After burning)
9. Maximum temperature in the combustion chamber is reached in the stage of…….
   a)Ignition Delay b) Rapid & uncontrolled combustion
   c) Controlled combustion d) After burning

10. In suction stroke……..valve is open
    a)Inlet b) Exhaust c) Injector d) None
11. Both the valves remains closed in…stroke.
    a)Suction b) Compression c) Exhaust d) None
12. Diesel is injected inside the engine cylinders at the end of…..Stroke
    a)Suction b) Compression c) Exhaust d) None
13. Inlet valve opens……..before TDC
    a)0^0-5 b) 5^0-10^0 c) 30^0-40^0 d)35^0-50^0
14. Inlet valve gets closed……..after BDC
    a)5^0-10^0 b) 35^0-50^0 c) 0^0-5^0 d) 35^0-50^0
15. 12.06 In actual working cycle of 4-stroke diesel engine Diesel injected just….reaching the piston at TDC.
    a)Before b) After c) On d) None

16. In actual working cycle of 4-stroke diesel engine compression and expansion takes place according to…….process
    a)Adiabatic b) Polytrophic c) Isothermic d) Isobaric

17. In 4-stroke petrol engine……is sucked during suction stroke
    a) Air b) Air petrol mixture c) petrol d) diesel petrol mixture

Question	Answer	Question	Answer
1	a	10	a
2	c	11	a
3	a	12	b
4	a	13	b
5	c	14	b
6	a	15	a
7	a	16	b
8	a	17	b
9	c		

Working Cycle of 4-stroke Diesel Engine

In actual working cycle suction takes place at……atmospheric pressure
a) Less than b) Equal to c) More than d) None

1. In actual working cycle inlet valve gets closed in …… stroke
   a) Suction b) Compression c) Power d) Exhaust
2. In actual working cycle injection of fuel starts……before TDC in power stroke.
   a) 14-18^0 b) 35^0-50^0 c) 5^0-10^0 d) none
3. In actual working cycle exhaust valve opens……..before TDC in power stroke.
   a)14^0-18^0 b) 35^0-50^0 c) 5^0-10^0 d)none
4. In actual working cycle exhaust valve gets closed…….after TDC in suction
   a)14^0-18^0 b) 35^0-50^0 c) 5^0-10^0 d) none
5. In Cummins engines cylinders are counted from…..side.
   a)Vibration damper b) Flywheel c) both a &b d) none

6. Viewing from flywheel side, diesel engines rotate……
   a)Clockwise b) Anticlockwise c) both a & b d) none
7. In Deutz Engine Model BF 12L 513C cylinders are counted from……side.
   a)Vibration damper b) Flywheel c).both a & b d)none
8. A Bank and B-bank are designated in…….engine
   a)MWM b) Cummins c) Deutz d) Kirloskar
9. In MWM (Greaves) engine inlet valve opens…..TDC
   a)1^0 after b) 10^0 after c) 1^0 after d) 1^0 before
10. In MWM (Greaves) engine fuel injection starts…….TDC.
    a)10^{0}after b) 10^{0}after c) 1^{0}after d)1^0 before

11. Valve overlap in MWM (Greaves) Engine is…..….
    a)1^0 b) 2^0 c)10^0 d) 35^0
12. Power flow gap in 4-cylinder engine is……..….
    a)120^0 b) 180^0 c) 90^0 d) 360^0
13. In a 4 cylinder engine 1 No. cylinder is at the end of power stroke, 3 No. cylinder will be at the end of……..……..
    a)Suction b) Compression c) Power d) Exhaust
14. In a 4 cylinder engine 3 No. cylinder is in mid-suction stroke, 2 No. cylinder will be in the mid ……..…….Stroke.
    a)Suction b) Compression c) Power d) Exhaust
15. Power flow gap in 6 cylinder engine is……,
    a)120^0 b)180^0 c) 90^0 d)360^0
16. In Power stroke over cap in a 6 cylinder engine is……
    a)60^0 b)120^0 c) 180^0 d)90^0
17. In a 6 cylinder engine 1 No. cylinder is at 1200 power stroke, 5 Nos. cylinder will be at ……..compression stroke.
    a)60^0 b)120^0 c) 180^0 d)90^0
18. Sufficient quantity of fresh air at NTP for complete combustion of 1 liter HSD is……
    a)12500 ltr To 14500 b) 1250 to 1450 ltr c) 200 ltr to 300 ltr. d)none
19. On Cummins engine……type air cleaner is used
    a)Oil bath b) Dry paper c) both d)none
20. On Kirloskar HA 694 engine…… type air cleaner is used
    a)Oil bath b) Dry paper type c) Both d)none
21. On Deutz engine model BF 12L 513C..... type of air cleaner is used
    a)Oil bath b) Dry paper c) Both d)none
22. On MWM TBD 232/234 engine…… type of air cleaner is used
    a)Oil bath b) Dry paper c) Both d)none

Question	Answer	Question	Answer	Question	Answer
1	a	10	a	19	a
2	b	11	d	20	b
3	a	12	b	21	b
4	b	13	b	22	a
5	c	14	b	23	b
6	a	15	c		
7	b	16	a		
8	b	17	a		
9	a	18	c		

Air Supply System of Diesel Engine

1. Supercharging is process of supplying air inside the engine cylinder at…. than atm pressure
   a) Less b) More c) both d) none
2. Turbocharger is a supercharging device which runs by
   a)Exhaust gases b) Engine Gear-trains c)both d)none
3. Supercharger is a super charging device which runs by
a)Exhaust gases b) Engine Gear-trains c)Both d)none
4. Turbocharger runs at rpm ……
a) 1000 b) 10000 c) 125000 d) none
5. Turbocharged engine should be run at idle for……minutes before stopping
a) 1 b) 2 c) 3-5 d) 0)
6. After cooler is a device used to cool …….
a) Air b) Oil c) Fuel d) Water
7. After cooler is fitted…….. Turbocharger
a) before b) after c) in between d) none
8. Silencer is an……system component
   a) Air supply b) Fuel supply Lubricating c) Cooling d) none
9. Turbocharger is fitted ……after cooler.
   a) Before b) After c) both d) none
10. Air cleaner is fitted…….….Turbocharger
a) Before b) after c) both d) none
11. Impeller of Turbocharger is at……side
a) Fresh air b) exhaust c)both d)none
12. Turbo wheel of Turbocharger is at……..side
a)Fresh air b) Exhaust c) both d) none
13. Oil coming out from Turbocharger goes to……..
a) Sump b) Oil gallery c) Oil cooler d) filter

Question	Answer	Question	Answer
1	b	9	a
2	a	10	a
3	b	11	a
4	c	12	a
5	c	13	a
6	a		
7	b		
8	c		

Fuel Supply System of Diesel Engine

1. Liquid fuel is injected with compressed air in ……
a) Air injection system b) Solid injection system c) both d) None of these

2. Only liquid fuel is injected and there is no need of compressed air in
a) Air injection system b) Solid injection system c) both d) none of these

3. Mico-Bosch fuel supply system is a……..…
a) Air injection system b) Solid injection system c) both d) none of these

4. Cummins P.T. fuel supply system is a …...…
a) Air injection system b) Solid injection system c) both d) none of these

5 In Mico-Bosch fuel supply system, fuel first passes through……
a) Cloth filter b) paper filter c) both d) none of these

6 In Mico-Bosch fuel supply system, fuel is drain from the diesel tank by ……
a) Fuel Feed pump b) Fuel injection pump c) both d) none of these

7 .In Mico-Bosch fuel supply system, Bleeding sources are provided on……
a) Feed pump b) Injector c) Filter body d) none of these

8 .Fuel injection pressure is……
a) 28bar b) 180bar c) 100 bar d) none of these

9. In Mico-Bosch fuel supply system leakage line starts from……..
a) Feed pump b) Fuel injection pump c) pump d) Injector

10. In Mico-Bosch fuel supply system relief valve and return line is provided on…….
a) Feed pump b) Fuel injection pump c) Injector d) none of these

11. Bleeding Screw is provided to remove…….
a) Air lock b) Lube Oil c) Water d) none of these

12. Hand priming pump is used in ……
a) Mico-bosch fuel supply system c) both
b) Cummins PT Fuel Supply System d) none of these

13. Hand priming pump is used to force fuel when engine is to
a) Start up b) Stop c) both d) none of these

Question	Answer	Question	Answer
1	a	11	a
2	a	12	a
3	b	13	a
4	a		
5	a		
6	a		
7	c		
8	b		
9	d		
10	b		

Fuel Supply System of Diesel Engine

1.Fuel feed pump is a ……
a)Plunger b) Pump c) Rotary Pump d) none
2. Fuel feed pump is a drive by.……
a) Eccentric b) Com c)both d)none.
3 .Primary filter is made of.……
a)Cloth b) Paper c)both d)none
4 .Secondary filter is made of.……
a)Cloth b) Paper c)both d)none
5. Pre filter is made of ……..
a) Cloth b) Paper c) Bronze d) Mesh
6. Fuel injection pump is a……..
a) Plunger Pump b) Rotary pump c) both d) none
7. 6 Cylinder FIP consists of……Nos. of plunger pumps
a) 3 b) 6 c) 12 d) 13
8. Plunger pump in FIP is driven by.……
a) Cam b) Eccentric c) both d)none)
9. Metering of fuel is done in……..
a) FIP b) Feed pump c) Injector d)none
10 Injection timing is maintained by…….
a) Camshaft b) Delivery valve c) Injector d) Feed pump
11 In Mico-Bosch Fuel supply system Injector function is to……..
a) Pressurize fuel b) Atomize & Vaporize c)both d)none
12 Injection pressure is set in…….
a) Injector b) Feed pump c)FIP d)none

Question	Answer	Question	Answer	Question	Answer
1	a	6	a	11	b
2	a	7	b	12	a
3	a	8	a		
4	b	9	a		
5	c	10	a		

Fuel Supply System of Diesel Engine

1 The abbreviation P.T. Stands for……
a) Pound-Time b) Pressure-Time c) both d) none of these

2. Ratio of P.T. pump speed to the crank shaft speed is
a) 1 b) 2 c)1:2 d) none of these
.
3 P.T. pumps is a ……..
a) Plunger pump b) Gear pump c) both d) none of these

4 In Cummins PT fuel supply system diesel from the tank is drawn by……
a) Feed pump b) PT pump c) none of these

5 Common rail pressure is 200-300…….
a) Bar b) PSI c) N/m^2 d) none of these

6 The P.T. pump has…….delivery
a) Single b) Multi c) none of these

7 In Cummins P.T. fuel supply system injector plunger is actuated by……..
a) Fuel pressure b) Cam-mechanism c) none of these

8 In Cummins P.T. fuel supply system injection pressure builds in……
a) P.T. pump, b) Injector c) none of these
9 In Cummins P.T. fuel supply system, injector return is……..
a) 80% b) 10% c) 20%) d) 55%
10 In Cummins P.T. fuel supply system, Bleeding screw is fitted on……..
a) filters b) P.T. pump c) Shut down valve d)none
11 In Cummins engine, fuel filter is of…….
a) Paper b) Cloth c) Felt d) none
12 In Cummins P.T. fuel supply system water separator is fitted……fuel filter
a) before b) after c)in between d)none
13 In Cummins P.T. fuel supply system N.R.V. us fitted just after….
a) water separator b) Fuel filter c) Shutdown valve d) none
14 In PTG fuel pump 'G' stands for……..
a) Gear control b) Governor control c) gate d) none
15 Filter screen (Mesh filter) is provided in…….
a) P.T. pump b) Injector c) both d) none
16. In Cummins P.T. fuel supply metering is done in……..
a) P.T. pump b) Injector c) Governor d) none
17. Cummins engines with drilled fuel passages will use ……....injector
a) Flanged b) Cylindrical c) both d) none
18. Cummins engines equipped with fuel manifold will use… injector
a) Flanged b) Cylindrical c) both d) none

Question	Answer	Question	Answer	Question	Answer
1	b	7	b	13	c
2	a	8	b	14	b
3	b	9	a	15	a
4	b	10	c	16	b
5	b	11	a	17	b
6	a	12	a	18	a

Fuel Supply System of Diesel Engine

1. Fuel feed pump is on component of ……fuel supply system
   a) Mico-Bosch b) Cummins PT c) both d)none
2. Hand primary pump is a component ….of fuel supply system
   a) Mico-Bosch b) Cummins c) PT d) none
3. N.R.V. is normally provided in ……fuel supply system
   a) Mico-Bosch b) Cummins c) both d) none
4. Pulsation damper is provided in……
   a)PT pump b) Fuel injection pump c)both d)none
5. Plunger pump is provided in ……..……..
   a) PT Pump b) FIP c)both d) none
6 Gear pump is provided in…….…….
   a) PT pump b) FIP c) both d) none
7. Delivery valve is provided in……
   a)PT pump b)FIP c)both d)none
8. Screen Mesh filter is provided in……..……
   a)PT pump b) FIP c)both d)none
9. Metering Orifice is provided in……..
   a)Cummins injector b) Mico-bosch injector c)both d)none

Question	Answer	Question	Answer	Question	Answer
1	a	4	a	7	b
2	a	5	b	8	a
3	b	6	a	9	a

Fuel Supply System of Diesel Engine

1. Most diesel fuel has cetane no.
   a)40 to 50 b) 200 to 300 c) 80-100 d)none
2. Cetane No. of x-methyl Naphthalene is assigned ……..
   a)40 b) 50 c) 0 d) 100)
3. Normal Heptane is assigned octane no. ……..
   a) 0 b) 100 c) 40 d) 50

Question	Answer
1	a
2	c
3	a

Fuel Supply System of Diesel Engine

1. Sludge is mixture of lubricating substance and
   a) Fuel b) Water c) Air d) none
2. Diesel Tank level should be kept……fitted
   a) Half b) Full c) empty d) none
3. In Diesel engines air lock means for stopping of ……..supply.

a) Fuel b) Air c) Oil d) Water

Question	Answer
1	b
2	b
3	a

Lubricating System of Diesel Engine

1. When a film of lubricating oil is imposed between the two surfaces, the friction produced is called……
   a) Solid friction b) fluid friction c) boundary friction d) none
2. The lube oil with……..viscosity variation is preferred
   a) Minimum b) Maximum c) both d) none
3 .The flash point of lube oil should be sufficiently……
   a) High b) Low c) Medium d) none
4. The pour point of lube oil should be… than the lowest temperature encountered in the engine
   a)Less b)More c)equal d)none
5. Corrosion means destruction of a solid body by. Action
   a) Chemical b) Mechanical c) pneumatic d) none

Question	Answer
1	b
2	a
3	a
4	a
5	a

Lubricating System of Diesel Engine

1. A dispersant/detergent is added to the lube oil to. The particles clotting

a)Prevent b) promote c)both d)none

2. Viscosity test of winter grade oil is done at ……

a)0^0F b) -18^0F c) 210^0F d) 99^0F

3. Viscosity test of summer grade oil is done at ……

a)0^0F b) -18^0F c) 210^0F d) 99^0F

4. SAE CF4 `15W-40 oil is meant for use up to…

a)-10^0C b) 0^0C c)-15^0C d) 40^0

5 Lube oil from turbocharger goes to ……

a)Oil gallery b) Sump c) oil Cooler d)none

6 Lube oil from super bypass filter goes to ……

a)Oil gallery b) Sump c) oil Cooler d) none

7 Oil from full flow filter goes to ……

a)Pressure regulator b) Oil Cooler c) Oil Pump d)none

8 Oil to main bearings comes from…… ……

a) Main Oil Gallery b) Connecting rod c)both d)none

9 Piston cooling pump draws oil from

a)Sump b) Full flow filter c) Oil Pump d) Super by pass filter)

Question	Answer	Question	Answer
1	a	6	b
2	a	7	b
3	c	8	a
4		9	a
5	b		

Lubricating System of Diesel Engine

1. Lubrication system adapted in 2-stroke petrol engine is…….
   a)Petroil system b) Splash system c) Pressure System d)none
2 .A scoop is made in the lowest part of the connecting rod system of lubrication……

   a) Petroil system b) Splash system c) Pressure System d)none

3. Dry system is used in engines of ……

   a) Road Vehicles b) Aeroplane c) Marine d)none

4. Lube oil pump is used in……..system of lubrication

   a)Petrol b) splash c) pressure d) Dry sump

5. Lube oil pump draws oil through the….

   a) Strainer b) Full flow filter c) Main oil gallery d)none

Question	Answer	Question	Answer
1	a	4	c
2	b	5	a
3	b		

Lubricating System of Diesel Engine

1. Oil pump used almost universally in engines ……
   a)Gear pump b) Plunger pump c) Rotor pump d) Vane pump
2. A…….valve is provided in many oil pumps

   a)Relief b) Unloader c) D.C. d) none

3. Strainer is attached at the……..…..of oil pump

   a)Inlet b) Outlet c) both d)none

4. Super bypass filter is used on…….engines

   a) MWM b) Cummins c) Kirloskar d) SUN

5. In oil cooler….. is cooled

   a)Oil b) Air c) Water d) Fuel

6. The lube oil level should be between….and… mark of Dipstick

   a) T&B b) H&L c) U&L d) H&B)

7. For checking lube oil……..is used

   a) Dipstick b) Glass Gauge c) Meter d) none

8. Oil pressure gauge fitted on driving panel will be mostly of……type

   a)electrical b) Mechanical c)both d)none

9. Oil pressure gauge fitted on driving panel will be mostly of…..type

   a) Electrical b) Mech. C) both d)none

10. The oil pressure indicating LED glows……..when oil pressure becomes down

    a) On b) OFF c) none

11. Oil pressure indicating LED gives indication of….lube oil pressure

    a)Increased b) Decreased c)First A then B d)none

12. Minimum oil pressure rating at idle speed is……bar

    a) 1.0 b) 1.5 c) 2.5 d) 3.5)

13. Minimum oil pressure rating at rated speed is……bar

    a) 1.9 b) 1.5 c) 2.5 d) 3.5

Question	Answer	Question	Answer	Question	Answer
1	a	6	b	11	b
2	a	7	a	12	b
3	a	8	a	13	c
4	b	9	b		
5	a	10	a		

Lubricating System of Diesel Engine

1. The escaping of burnt gases from combustion chamber to the crank case chamber is called…..
   a) Blow bye b) Blow down c) leakage d) Seepage
2. Breather is component of ……..system
   a)Air supply b) Fuel Supply c) Lubricating d) Cooling
3. Weak relief valve will result in……lube oil pressure
   a) Low b) High c) Medium d) none

Question	Answer
1	a
2	a
3	a

Lubricating System of Diesel Engine

1. Location of strainer is inside…….
   a) Sump b) Cylinder Block c) Timing Cover d) Head
2. Location of lube oil pump on KTA-1150-L engine is
   a) In sump b) on cylinder block c) on Crank case d) on Head
3. Location of relief valve on KTA-1150-L engine is
   a) in sump b) on cylinder block c) in oil pump d) in main oil gallery
4. Super bypass filter is …….then inline lube oil filters
   a) finer b) loarser c) both d) none
5. Lube oil pump is…….driven
   a) Belt b) Gear c) both d) none
6. During starting of Cummins engine by pass switch is pressed to bypass……
   a) Bypass filter lube oil safety b) Circuit c) Shutdown valve d) Turbocharger

Question	Answer	Question	Answer
1	a	4	a
2	c	5	a
3	c	6	a

Cooling System of Diesel Engine

1. Temperature of burning air fuel mixture is of the order of..
   a) 25^0C b) 250^0C c) 2500^0 C d) 1500^0C
2 .Temperature of engine must be controlled in the range of ……
   a) 71^0C-88^0C b) 74^0C-85^0C c) 200^0C-250^0C d) none
3 .Cooling system should become functional when engine
   a) Worms up b) Code down c) is started d) runs at rated rpm
4. Engine warms up faster in……..….system
   a)Air cooling b) Water Cooling c) both d) none
5. Air cooled engines are……..than water cooled engines
   a) Lighters b) Heavier c) both d) none
6 .Air cooling is……..efficient than water cooling
   a) Less b) More c) both d) none
7 .Total length of finned cylinder barrel is.....times the cylinder bore
   a) 1 to1.5 b) 0.5 to 1.5 c) 1.5 to 2.0 d) none

Question	Answer	Question	Answer
1	c	5	a
2	c	6	a
3	a	7	a
4	a		

Cooling System of Diesel Engine

1 The normal operating water temperature of the engine should be...
a) 71^0C-88^0C b) 74^0C-82^0C c) both d) none
2 The most suitable operating water temperature of engine is assumed……
a) 71^0C-88^0C b) 74^0C-85^0C c) 82^0C d) none
3 Radiator upper tank is connected to the water of the engine
a) outlet b) Inlet c) both d0 none
4 Radiator lower tank is connected to the water of the engine
a) outlet b) Inlet c) both d) none
5 Thermostat valve starts opening at …….
a) 71^0C b) 74^0C c) 85^0C d) 88^0C
6 Thermostat valve opens completed at …….
a) 71^0C b) 74^0C c) 85^0C d) 88^0C
7 When Thermostat, valve opens completely water flows through the…
a) Radiator b) Water Pump c) both d) none
8 When Thermostat, valve closed completely water flows through the…
a) Radiator b) Water Pump c) both d)none
9 Radiator fan……air
a) Draws b) Throws c) both d) none
10 Relief valve and vaccum valve is provided in radiator capacity in.....system
a) Closed b) Open c) both d) none
11 Relief valve is set to open at a pressure of……kg/cm^2
a)0.55 to 1.10 b) $28kg/cm^2$ c) 6.5-7.0kg/cm^2 d) none
12A 1.10kg/cm^2 valve would provide a boiling point of ……..
a)100^0C b) 125^0C c) 85^0C d) 75^0C
13 Coolant additive concentrate is used in engines
a) Cummins b) MWM c) both d) none
14 Nalcool 2000 is used in……engines
a) Cummins b) MWM c) both d) none
15 The ratio of CAC: Water is……
a) 1:15 b) 1:30 c) 1:20 d) none
16 The ratio of Nalcool 2000: Water is……
a) 1:15 b) 1:30 c) 1:20 d) none
17 Maxthesm additive is used in ……engines
a) Cummins b) MWM c) both d) none
18 The ratio of Maxthesm additive: Water is…….
a) 1:15 b)1:30 c) 1:20 d) none
19 In hot and shut down engine water should be……
a) Fitted b) not fitted c) both d) none
20 In hot running engine water……fitted slowly
a) May be b) should not be c) both d) none

Question	Answer	Question	Answer	Question	Answer
1	a	8	b	15	a
2	c	9	a	16	b
3	a	10	a	17	b
4	b	11	a	18	c
5	b	12	b	19	b
6	c	13	a	20	a
7	a	14	b		

Cooling System of Diesel Engine

1. Internal leak of water may produce…… vapour in exhaust gases
   a) White b) black c) brown d) Colourless
2. Defective cylinder head gasket results in…….leakage
   a) Internal b) External c) both d) none
3. Recommended pH value of coolant on Cummins engine is……
   a) 7 b) less than 7 c) 8.5 to 10.5 d) 8.0 to 10.0
4. Recommended pH value of coolant on MWM engine is……
   a) 7 b) less than 7 c) 8.5 to 10.5 d) 8.0 to 10.0
5. Overcooling…….volumetric efficiency
   a) Increases b) decreases c) both d) none
6. Over cooling……Thermal efficiency
   a) Increases b) Decreases c) both d) none

Question	Answer	Question	Answer
1	a	4	d
2	a	5	a
3	c	6	b

Cooling System of Diesel Engine

1 .Blower is used in…….cooling system
a) Air b) Water c) both d) none
2. Fins are used in…….cooling system
a) Air b) Water c) both d) none
3. Radiator fan is used in…….cooling system
a) Air b) Water c) both d) none
4. In India, Thermostat valve is used in ……Cooling system
a) Air b) Water. c) both d) none
5. Deutz BF 12L 513C is equipped with……..cooling system
a) Air b) Water c) both d) none
6. MWM (Greaves) TBD 232 viz engine is equipped with……cooling system
a) Air b) Water c) both d) none
7. Cummins KTA-1150-L engine is equipped with……..cooling system
a) Air b) Water c) both d) none
8. Kirloskar HA 694 is equipped with……cooling system
a) Air b) Water c) both d)none
9. SUN 6105I engine is equipped with……..cooling system
a) Air b) Water c) both d) none
10. Air charge cooler on Deutz BF 12L 513C is ……..cooled
a) Air b) Water c) both d) none
11. Inter cooler on MWM TBD 232 V12 Engine is……..cooled
a) Air b) Water c) both d) none
12. After cooler on Cummins engines is ……..cooled
a) Air b) Water c) both d) none

Question	Answer	Question	Answer	Question	Answer
1	a	5	a	9	a
2	a	6	b	10	a
3	b	7	b	11	b
4	b	8	a	12	b

Maintenance Schedule of Diesel Engine

1. Engine oil is checked in…….Schedule
   a) Daily b) 50hrs c) 100hrs d) 200hrs
2. Coolant level is checked in……..schedule
   a) Daily b) 50hrs c) 100hrs d) 200hrs
3 Air cleaner vaccum indicator is checked in.……schedule
   a) Daily b) 50hrs c) 100hrs d) 200hrs
4 V-belt tension is checked in.……schedule m
   a) Daily b) 50hrs c) 100hrs d) 200hrs.
5 Air tank is draned……..the days work
   a) After b) Before c) Both d) none
6 Water separator is drained…….starting the engine
   a) Before b) After c) both d) none
7 V-belt condition is checked in.……schedule
   a) Daily b) 50hrs c) 100hrs d) 200hrs
8 Brake shoes condition is checked in……..schedule
   a) Daily b) 50hrs c) 100hrs d) 200hrs
9 Electrolyte level and specific gravity of batteries is checked in……..schedule.
   a) Daily b) 50hrs c) 100hrs d) 200hrs
10 Outer air filters is cleaned in…….schedule.
   a) Daily b) 50hrs c) 100hrs d) 200hrs
11 High water temperature safely device is checked in ……..schedule.
   a) Daily b) 50hrs c) 100hrs d) 200hrs
12 Low lube oil pressure safely deice is checked in.....schedule.
   a) Daily b) 50hrs c) 100hrs d) 200hrs
13 Mounting Bolt of engine is examined in……..schedule.
   a) Daily b) 50hrs c) 100hrs d) 200hrs
14 In KTA-1150-L engine, oil is replaced at……..….hrs
   a) 100 b) 200 c) 250 d) 1000
15 In KTA-1150-L engine, lube oil filter is replaced at……..….hrs
   a) 100 b) 200 c) 250 d) 1000
16 In KTA-1150-L engine fuel filter is replaced at……..….hrs
   a) 100 b) 200 c) 250 d) 1000)
17 In KTA-1150-L engine oil by pass filter is replaced at…….hrs
   a) 100 b) 200 c) 250 d) 1000
18 Crank case Breather is cleaned in…….schedule
   a) 100 b) 200 c) 250 d) 1000
19 Outer and Inner engine air cleaner element is replaced at…..hrs
   a) 200 b) 250 c) 500 d) 1000
20 Self Starter is overhauled in schedule……..
   a) III b) IV c) V d) VI
21 Alternator is overhauled in schedule…….
   a) III b) IV c) V d) VI)
22 Injector is overhauled in schedule
   a) III b) IV c) V d) VI
23 Fuel pump is overhauled in schedule……
   a) III b) IV c) V d) VI
24 Fuel pump is overhauled in schedule……
   a) III b) IV c) V d) VI
25 Rocker cover Gasket is replaced in schedule…….
   a) III b) IV c) V d) VI
26 Diesel Tank is cleaned in schedule…….
   a) III b) IV c) V d) VI

27 Schedule V is done at……..Hours of engine running
a) 200 b) (1000, 3000 & 5000) c) (2000 & 4000) d) 6000

28 Water Separator and Air Oiler is overhauled in schedule…….
a) III b) IV c) V d) VI

29 Air unloaded is overhauled in schedule…….
a) III b) IV c) V d) VI

30 Schedule VI is done at……..Hours of engine running
a) 200 b) (1000, 3000 & 5000) c) (2000 & 4000) d) 6000

31 Engine mounting pad is replaced in schedule……..
a) III b) IV c) V d) VII.

32 Dynamic Balance of vibration Damper is checked is schedule……..
a) III b) IV c) V d) VII.

33 RPM of engine radiator from should not be less than……..
a) 900 b) 1600 c) 2100 d) 2300.

34 In checking Tension of V. belt, deflection at Centre should not be more than……..mm.
a) 10mm b) 15mm c) 25.4mm d) 20mm.

Question	Answer	Question	Answer	Question	Answer
1	a	13	c	25	c
2	a	14	c	26	c
3	a	15	c	27	b
4	a	16	c	28	d
5	a	17	c	29	d
6	a	18	b	30	b
7	b	19	b	31	d
8	b	20	c	32	d
9	b	21	c	33	b
10	b	22	c	34	b
11	c	23	c		
12	c	24	c		

Maintenance Schedule of Diesel Engine

1 Contamination indicator (pilot lamp) for dry type air cleaner is checked in …….schedule.
a) Daily b) 50hrs c) 100hrs d) 200hrs

2 Outer air cleaner element of Deutz Engine is cleaned with……pressure of dry air.
a) 1.5bar b) 2.5 bar c) 3.5bar d) 6.5bar

3 Oil in the wet type air cleaner is changed in ……Schedule
a) Daily b) 50hrs c) 100hrs d) 200hrs

4 Battery plug connection are cleared and petroleum jelly is applied in……..
a) Daily b) 50hrs c) 100hrs d) 200hrs .

5 Minimum Specific gravity should be……..
a)1.180 b) 1.110 c) 1.240 d) 1.260

6 Fuel pre-filler (Wire mesh) is cleaned at……engine hrs schedule at
a) 50 b) 100 c) 200 d) 1000

7 In Deutz BF 12L 513C engine , twin stage fuel filter element is changed in…….. Engine hrs. Schedule
a) 50 b) 100 c) 200 d) 1000

8 In Deutz BF 12L 513C, Engine, oil is changed at engine …….hrs.
a) 100 b) 200 c) 250 d) 300

9 Clutch Drive shaft bearings are greased in engine hrs. …...schedule.
a) 50 b) 100 c) 200 d) 1000

10 Clutch fluid level in container is checked in engine hrs. …...schedule.
a) 50 b) 100 c) 200 d) 1000

11 Cooling coil is decarbonizes in schedule
a) IV b) V c) VI d) VII

12 High pressure fuel pipes clamps are checked in schedule……..
a) IV b) V c) VI d) VII

13 Crankcase Breather element is replaced in schedule……..
a) IV b) V c) VI d) VII

14 In Deutz BF 12L 513C engine temperature indicator is tested in schedule
a) IV b) V c) VI d) VII

15 In Deutz BF 12L 513C engine fuel injection pump and injectors are caliberated in schedule.
a) IV b) V c) VI d) VII

16 Blower Assembly is overhauled in schedule …….
a) IV b) V c) VI d) VII

Question	Answer	Question	Answer	Question	Answer
1	a	7	b	13	b
2	a	8	b	14	b
3	b	9	c	15	c
4	b	10	c	16	d
5	c	11	b		
6	b	12	b		

Maintenance Schedule of Diesel Engine

1. Recommended coolant water temperature for MWM engine……
   a) 75^0C to 85^0C b) 71^0C to 88^0C d) none
2. Maximum coolant temperature of MWM engine is ……
   a) 71^0C b) 85^0C c) 88^0C d) 95^0C
3. Safety circuit of MWM engine…….if water temperature rises above 95^0C
   a) gives buzzer sound b) shuts down the engine c) both d) none
4. As per RDSO Maintenance schedule lube oil of MWM is to be changed at ……
   a) 100hrs b) 125hrs c) 200hrs d) 250hrs)
5. As per RDSO maintenance schedule fuel filters of MWM engine are to be changed at…….hrs.
   a) 100 b) 125 c) 200 d) 250
6. As per RDSO maintenance schedule centrifuge of MWM engine is to be cleared at…….hrs.
   a) 100 b) 125 c) 200 d) 250
7. Valve tappet clearance of MWM TBD 232 V12 engine is…….mm in cold
   a) 0.2 b) 0.3 c) 0.14 d) 0.27
8. As per RDSO maintenance schedule breather of MWM engine is to be cleaned at…….hrs.
   a) 100 b) 125 c) 200 d) 250
9. As per RDSO maintenance schedule compressor breather of MWM engine is to be cleaned at…….hrs.
   a) 100 b) 125 c) 200 d) 250
10. As per RDSO maintenance schedule filter of MWM engine is cleaned at…….hrs.
    a) 100 b) 125 c) 200 d) 250

Question	Answer	Question	Answer
1	a	6	b
2	d	7	a
3	b	8	c
4	b	9	c
5	b	10	c

Maintenance Steps of Diesel Engine

1 Priming of engine is done to maintain ……..film on bearing
   a) Coolant b) Lube oil c) Fuel d) Grease.
2 Uniform metered fuel and…….are requirements of fuel regulation
   a) Fine spray b) Scattered Spray c) Thick droplets d) none
3 Over speeding causes piston to strike and break……
   a) Rings b) Injectors c) Valves d) Cylinder Head
4 During Normal operations, over speeding of engine is protected by
   a) FIP b) Injector c) Governor d) Accelerator
5 For controlling corrosion in MWM engine……..is added. To water in ratio 1:30
   a) CAC b) Nalcool 2000 c) Nalprep d) none

Question	Answer	Question	Answer
1	b	4	c
2	a	5	b
3	c		

Maintenance Steps of Diesel Engine

1. ……..most rings is assembled first
   a) Bottom b) Top c) both d)none of these
2. Piston rings are inserted through piston…….side
   a) Skirt b) Top c)both d) None of these
3. The end gap of piston ring is approximately …….per inch of piston diameter
   a) 0.001” b) 0.01” c) 0.1” d) 0
4. The gap for all the piston rings……fall in one line.
   a) Should b) Shouldn’t c)both d) none of these
5. While fitting the piston rings apply sufficient quantity of …….oil
   a) Lube b) Hydraulic c) Gear d) Mustard
6 .Piston rings should fit……in the grooves
   a) Tight b) free c) none d) none of these
7 .For easy sliding of piston with rings into liner...is used
   a) Ring expender b) ring compressor c) both d) none
8 . For easy sliding of piston with rings into liner…..is used
   a) Ring expander b) ring compressor c) both d) none
9. To ensure piston facing in right direction, notch or other markings must face of the engine
   a) Front b) Scare c) both d) none
10. In two stroke cylinders, ring gap……face the port otherwise they may break
   a) Shouldn’t b) Should c) both d) none of these

Question	Answer	Question	Answer	Question	Answer
1	a	5	a	9	a
2	b	6	b	10	b
3	a	7	a		
4	b	8	a		

Maintenance Steps of Diesel Engine

1 In Cummins engines, valve clearance is gap between rocker arm and…….
a) Valve stem b) Cross head c) Push rod d) none

2 In MWM/Kirloskar/Deutz Engines valve clearance is gap between rocker arm and….
a) Valve stem b) Cross head c) Push Rod d)none

3 Valve clearance is got max^{m} when piston is at TDC in ……Stroke
a) Suction b) Compression c) Power d) Exhaust

4 At TDC of ……strokes, both the rocker arms will be loose.
a) Suction b) Compression c) Power d) Exhaust

5 At TDC of ……strokes, both the rocker arms will be loose.
a) Suction b) Compression c) Power d) Exhaust)

6 To bring the piston at TDC of Compression stroke from TDC of exhaust stroke……..……..revolution of flywheel is made
a) ½ b) One c) Two d)none of these

7 From delivery pipe of FIP, fuel starts coming, when corresponding piston is at TDC of ……..stroke
a) Suction b) Compression c) Power d) Exhaust

8 Cummins injector is actuated at the end of….....
a) Suction stroke b) Compression c) Power d) Exhaust.

9 Engine should be rotated in the ……..of rotation
a) Direction b) Opposite Direction c)both d)none of these

10 To get next cylinder in the position of valve clearance adjustment according to firing order, the engine needs to be rotated by……
a) 180^0 b) 360^0 c) 720^0 d) none

11 A 6 cylinder engine needs to be rotated by ……..to get next cylinder for valve adjustment according to firing order
a) 90^0 b) 120^0 c) 180^0 d) 360^0)

12 A 12 cylinder engine needs to be rotated by ……..to get next cylinder for valve adjustment according to firing order
a) 90^0 b) 60^0 c) 120^0 d) 180^0

13 Inlet valve clearance of Cummins engines are……..
a) 0.2mm b) 0.3mm c) 0.014” d) 0.027”)

14 Exhaust valve clearance of Cummins engines are…….
a) 0.2mm b) 0.3mm c) 0.014” d) 0.027”

15 Inlet valve clearance on MWM engine is……...
a) 0.2mm b) 0.3mm c) 0.014” d) 0.027”

16 Exhaust valve clearance on MWM engine is…….....
a) 0.2mm b) 0.3mm c) 0.014” d) 0.027”

17 Inlet valve clearance on BCM Deutz engine is…….....
a) 0.2mm b) 0.3mm c) 0.014” d) 0.027”

18 Exhaust valve clearance on BCM Deutz engine is……..
a) 0.2mm b) 0.3mm c) 0.015” d) 0.27”

19 Inlet valve clearance on PQRS HA 694 engine is……..
a) 0.2mm b) 0.3mm c) 0.015” d) 0.027”

20 Exhaust valve clearance on PQRS HA 694 engine is…....
a) 0.2mm b) 0.3mm c) 0.15” d) 0.027”

21 Rocker lever of exhaust valve aligns with...manifold
a) Exhaust b) Inlet c) both d) none

22 Rocker lever of inlet valve aligns with.....manifold
a) Exhaust b) Inlet c) both d) none

Question	Answer	Question	Answer	Question	Answer
1	b	9	a	17	a
2	a	10	c	18	b
3	b	11	b	19	c
4	b	12	b	20	c
5	d	13	c	21	a
6	b	14	d	22	b
7	b	15	a		
8	b	16	a		

Workshop Technology

Smithing and Forging

01.01 Forging is a plastic deformation process-
(a) True. (b) False

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01.02 Low and medium carbon steels are readily forged-/
(a) True. (b) False

01.03 High carbon and alloy steels are readily forged-
(a) True. (b) False

01.04 Stainless steels are forged specially for aerospace uses-
(a) True. (b) False

01.05 Forge ability decreases with temperature upto a point at which grain growth becomes excessive-
(a) True. (b) False

01.06 Which of the following is a good forgeable material-?
(a) Carbon/low alloy steels (b) Martens tic stainless steel
(c) Iron base super alloys (d) none

01.07 Economical, easily controlled and mostly used furnace is-
(a) Gas, oil (b) Electric Resistance (c) Induction healing (d)none

01.08 Temperature to begin forging for soft low carbon steel is-
(a) 1250^0C-1300^0C (b) 800-850^0C (c) both (d) none

01.09 Brass nd Bronze alloys are heated to about…….for forging-
(a) 600-950^0C (b) 350^0C-500^0C (c) both (d) none

01.10 Welding is a typical forging operation-
(a) True. (b) False

Question	Answer	Question	Answer	Question	Answer
01.01	a	01.05	b	01.08	a
01.02	a	01.06	a	01.09	a
01.03	b	01.07	a	0110	a
01.04	a				

Smithing and Forging

02.01 Which of the following is not used in hand forging-
(a) Anvil (b) Tongs (c) Feeler (d) Presses

02.02 Large machine part can be forged by hand.
(a) True. (b) False

02.03 Hand forging does not require repeated heating.
(a) True. (b) False

02.04 Anvil block serves as a rigid support in power hammering.
(a) True. (b) False

02.05 Heavy falling part of hammer is called ram.
(a) True. (b) False

02.06 In smith forging the working surfaces of both the upper and lower dies are-
(a) Flat and horizontal (b) With closed impression. (c) Both (d) none

02.07 Capacity of a hammer is determined by-
(a) Weight (b) Size (c) Shape (d) none

02.08 Helve hammers are operated by-
(a) Eccentric (b) Rope (c) Chain (d) Toggle

02.09 Trip hammers are actuated by-
(a) Eccentric (b) Rope (c) Chain (d) Toggle

02.10 Lever spring Hammers are by-
(a) Rocking level (b) Toggle (c) Chain (d) none

02.11 Pneumatic hammers has compressor cylinder and ram cylinders-
(a) True. (b) False

02.12 Steam or air hammers inbuilt compressor-
(a) True. (b) False

Question	Answer	Question	Answer	Question	Answer
02.01	c	02.05	a	02.09	d
02.02	b	02.06	a	02.10	a
02.03	b	02.07	a	02.11	b
02.04	a	02.08	a	02.12	b

Welding and Related Processes

03.01 Application of pressure and filler metal is essential in welding-
(a) True. (b) False

03.02 Plastic welding is also called……welding-
(a) Pressure. (b) Fusion (c) Non-pressure (d) none

03.03 Fusion welding is also called……..welding-
(a) Pressure. (b) Fusion (c) Non-pressure (d) none

03.04 In cold welding……..is applied-
(a) Heat (b) Pressure (c) both (d) none

03.05 Fusion welding may be-
(a) Autogenous (b) Non-autogenous (c) Both (d) none

03.06 If welding temperature is correct it will form-
(a) Plane of weakness (b) Equiarel grains (c) both (d) none

03.07 Considerable degree of grain refinement occurs due to normalizing in……welding-
(a) Single run (b) Multi run (c) both (d) none

03.08 Slag and gas inclusions may be higher in……welding-
(a) Single run (b) Multi run (c) both (d) none

03.09 Nitrogen appearing as needle on certain planes in crystals causes-
(a) Low impact strength (b) High impact strength (c) both (d) none

03.10 Stresses setup in the weld by shrinkage may be relieved by annealing -
(a) True. (b) False

Question	Answer	Question	Answer	Question	Answer
03.01	b	03.05	c	03.09	b
03.02	a	03.06	b	03.10	a
03.03	c	03.07	b		
03.04	b	03.08	b		

Welding and Related Processes

04.01 Oxyacetylene welding is suitable for sheets and plates of thickness 2 to 50mm-
(a) True.(b) False

04.02 Flux is employed during welding of mild steel-/
(a) True.(b) False

04.03 The temperature of oxyacetylene flame in its hottest region is about-
(a) 2500^0C.(b) 1539^0C (c) 3200^0C (d) none

04.04Carburizing flame has excess of-
(a) Acetylene(b) Oxygen(c) Air (d) none

04.05 Carburizing flame is necessary for welding of brass-
(a) True(b) False

04.06 High pressure Acetylene cylinders are charged to a pressure of……-
(a) $1Kg/cm^2$ (b) $2Kg/cm^2$ (c) $154Kg/cm^2$ (d) none

04.07 Oxygen cylinders are charged at a pressure of about-
(a) $1Kg/cm^2$ (b) $2Kg/cm^2$ (c) $154Kg/cm^2$ (d) none

04.08 Air acetylene welding process attains higher temperature than other gas processes-
(a) True(b) False

04.09 Oxy-hydrogen process was used to weld……milting point metals.-
(a) Low (b) High (c) both (d) none

Question	Answer	Question	Answer	Question	Answer
04.01	a	04.05	a	04.09	a
04.02	b	04.06	a		
04.03	c	04.07	a		
04.04	a	04.08	b		

Welding and Related Processes

05.01 Anode is……pole of dc power supply-
(a) Positive.(b) Negative (c) neutral (d) both

05.02 1 KWH of electricity will create 250 calories-
(a) True.(b) False

05.03 Two thirds of heat is generated near……..pole-
(a) Positive.(b) Negative (c) neutral (d) both

05.04 Electrode connected to positive pole will burn 50 percent faster than that is connected to negative pole-
(a) True.(b) False

05.05 A.C. welding transformer step down the usual supply voltage (200-400V) to the normal open circuit voltage of-
(a) 50-90V(b) 150-200V(c) 30-50V (d) none

05.06 The electric energy consumption per Kg. of deposited metal in A.C. welding is from…….-
(a) -04KWH (b) 6-10KWH (c) none (d) both

05.07 The motor in a D.C. welding has a power factor of-
(a) 0.3 to 0.4 (b) 0.3 to 0.4 (c) both (d) none

05.08 Open circuit (No load) voltage is higher than arc voltage-
(a) True (b) False

05.09 With D.C. current the open circuit voltage must be at least-
(a) 30 to 35 (b) 30 to 35 (c) both (d) none

05.10 Mean total ampere for a 4mm electrode is about-
(a) 70A (b) 105A (c) 140A (d) none

05.11 Mean total ampere for a 3.25mm electrode is about-
(a) 70A (b) 105A (c) 140A (d) none

05.12 Resistance welding uses pressure to complete the weld-
(a) True(b) False

Question	Answer	Question	Answer	Question	Answer
05.01	a	05.05	a	05.09	a
05.02	a	05.06	a	05.10	c
05.03	b	05.07	b	05.11	b
05.04	a	05.08	a	05.12	a

Welding and Related Processes

06.01 For joining parts not subjected to high temperature and excessive loads…….used-
(a) Soft soldering. (b) Hard soldering (c) both (d) none

06.02 Solder composed of lead and tin has a melting range of -/
(a) 150-350^{0}C. (b) 600-850^{0}C (c) both (d) none

06.03 Flux is used to prevent……..of the surfaces to be soldered-
(a) Oxidation. (b) Rusting (c) Carbides (d) none

06.04 Flux is used to dissolve that settle on the metal surfaces during heating process-
(a) Oxides .(b) Rusts (c) Carbides (d) none

06.05 Lead……..percent and tin…….percent is used in soft solder-
(a) 37, 63 (b) 63, 37 (c) 50, 50 (d) 58, 42

06.06 Lead……..percent and tin…….percent is used in medium solder-
(a) 50, 50 (b) 37, 63 (c) 58, 42 (d) none

06.07 Lead……..percent and tin…….percent is used in Electrician solder-
(a) 37, 63 (b) 50, 50 (c) 58, 42 (d) none

06.08 Open Brazing gives stronger joint than soldering-
(a) True (b) False

06.09 Spelter is used in-
(a) Soldering (b) Brazing (c) both (d) none

06.10 Spelter fuses…….red heat, but…….the melting temperature of the parts to be joined-
(a) Above, below (b) Below, above (c) both (d) none

06.11 Silver bare alloys spelter has a melting range of -
(a) 150-350^{0}C.(b) 600-850^{0}C (c) both (d) none

06.12 Resistance welding uses pressure to complete the weld-
(a) True (b) False

Question	Answer	Question	Answer	Question	Answer
06.01	a	06.05	a	06.09	a
06.02	a	06.06	a	06.10	a
06.03	a	06.07	c	06.11	
06.04	a	06.08	a		

Welding and Related Processes

07.01 Maximum……..percent wear in Cross section area is allowed on tamping tool-
(a) 20. (b) 30 (c) 50 (d) none

07.02 ……Facing Electrodes are used for welding of tamping tools
(a) Hard. (b) Soft (c) both (d) none

07.03 Thickness of Tamping Tool at top……..mm at bottom……mm is maintained.-
(a) 20, 5.(b) 5, 20(c) 140, 70(d) 70, 140

07.04 Reconding of tamping tool is done by…….welding.-
(a) Electric Arc.(b) Gas (c) both (d) none

07.05 For recnding of Tamping Tools,……supply is given to Electrode -
(a) Positive(b) Negative (c) both (d) none

07.06 One welding layer should be cooled before doing another layer-
(a) True(b) False

07.07 Improper cleaning of surface causes…….-
(a) Lack of fusion(b) Under cutting(c) Cracks (d) none

07.08 High current and more Arc gap causes…….-
(a) Lack of Fusion(b) Under cutting(c) Cracks (d) none

07.09 Excess heat generation causes…….-
(a) Lack of Fusion(b) Under cutting(c) Shape Deformation (d) none

Question	Answer	Question	Answer	Question	Answer
07.01	a	07.05	a	07.09	c
07.02	a	07.06	a		
07.03	a	07.07	a		
07.04	a	07.08	b		

Welding and Related Processes

08.01 For welding of BCM turret gear hardness of the order of…….is maintained-
(a) 350BHN (b) 100BHN (c) both (d) none

08.02 For welding of turret gear……..electrode of Larsen & Turbo is used.
(a) C-2RL. (b) 2B (c) both (d) none

08.03 12 to 14% Mn is available in main links of BCM.-
(a) True.(b) False

08.04 During welding of turret gear half portion is immersed in
(a) Water(b) Oil (c) Acid (d) none

08.05 Reconditioning of cutter bar is done by welding-
(a) True(b) False

08.06 Grinding is not required for recondition of turret gear-
(a) True(b) False

Question	Answer	Question	Answer	Question	Answer
08.01	a	08.03	a	08.05	a
08.02	b	08.04	a	08.06	b

Bench Work and Fitting

09.01 Vice consists of both jaws movable-
(a) True.(b) False

09.02 Vice jaws have replaceable jaw plates-/
(a) True.(b) False

09.03 For common work vice jaw opening is.-
(a) 80-140mm. (b) 95-180mm (c) 400-500mm (d) none

09.04 Philips screw driver has……..shaped.……..-
(a) Flat (b) Star (c) both (d) none

09.05 While using screw drivers, jobs…….kept in hand-
(a) Should be (b) should not be (c) both (d) none

09.06 For taking out circlip from engine piston…….circlip pliers is used-
(a) External (b) Internal (c) both (d) none

09.07 For screwing/unscrewing rail clamp……..spanner is used-
(a) Open ended (b) Adjustable (c) Box (d) none

09.08 For Allen bolts have…….-
(a) Hex head (b) Hex groove in head (c) Slot in head (d) none

09.09 Stud extractor is used for removing broken bolts/studs-
(a) True(b) False

Question	Answer	Question	Answer	Question	Answer
901	b	09.04	b	09.07	
09.02	a	09.05		09.08	b
09.03	b	09.06	a	09.09	a

Measurement and Inspection

10.01 Go and no-go gauges reveal actual size of dimension-
(a) True. (b) False

10.02 International standard meter is equal to 1650763.73 vacuum wave length of orange radiation of Krypton-85-/
(a) True. (b) False

10.03 Micrometer is a ……..standard instrument-
(a) End. (b) Length (c) both (d) none

10.04 Graduated rule or scale is a ……..Instrument-
(a) Precision (b) Non-Precision (c) both (d) none

10.05 Vernier-calliper is a……Instrument-
(a) Precision (b) Non-Precision (c) both (d) none

10.06 In external micrometer, beveled edge of thimble is divided into……equal parts-
(a) 50 (b) 10 (c) 100 (d) none

10.07 The micrometer screw has a pitch of…….-
(a) 1mm (b) 0.5mm (c) 2mm (d) 10 mm

10.08 Leat count of micrometer with 50 divisions on thimble and pitch equal to 0-5mm will be-
(a) Hex head (b) Hex groove in head (c) Slot in head (d) none

10.09 Reading of micrometer = Main Scale reading + Least count X No. of divisions passed reference line on thimble-
(a) True (b) False

10.10 Vernier Calliper has vernier scale whose 50 divisions corresponds to 49mm on main scale. The Least count will be-
(a) 0.01mm (b) 0.02mm (c) 2mm (d) none

10.11 Reading of Calliper = Main scale reading + Least count x vernier scale reading-
(a) True (b) False

Question	Answer	Question	Answer	Question	Answer
10.01	b	10.05		10.09	a
10.02	a	10.06	a	10.10	b
10.03	a	10.07	b	10.11	
10.04	b	10.08	a		

Measurement and Inspection

11.01 Comparators are used for simple and accurate comparison of parts-
(a) True.(b) False

11.02 In dial Indicator with 100 divisions, turn of pointer by one division indicates……travel of plunger-
(a) 1mm (b) 0.01mm (c) 0.02mm (d) none

11.03 Optical comparators suffer less wear during wage than the mechanical tyoe-
(a) True. (b) False

11.04 Protractor is used for…….measurement-
(a) Linear (b) Angular (c) both (d) none

11.05 Direct measurement of angle is done by-
(a) Bevel protractor(b) Sine Bar (c) both (d) none

11.06 Where precision in measurement of angles is required, is used-
(a) Bevel gauge(b) Angle gauge (c) both (d) none

11.07 Taper micrometers is ten times faster than older conventional methods-
(a) True(b) False

Question	Answer	Question	Answer	Question	Answer
11.01	a	11.04	b	11.06	b
11.02	b	11.05	a	11.07	a
11.03	a				

Measurement and Inspection

12.01 Gripping of ring spanner is better than open end spanner.
(a) True (b) False

12.02 In Showing and unscrewing is faster with-
(a) Open end spanner. (b) Ring spanner (c) both (d) none

12.03 Allen Key is used for……head bolts-
(a) Hex. (b) Round (c) both (d) none

12.04 Allen key consists…….sides (Faces)-
(a) 6 (b) 4 (c) 3 (d) none

12.05 Wing nuts are used for tightening/loosening hacksaw-
(a) True (b) False

12.06 Finisher tap has……..threads ground in Tapper-
(a) 6-8 (b) 3-5 (c) 1-2 (d) none

12.07 Which of the following is not a component of an external micrometer-
(a) Graduated sleeve (b) Depth Gauge (c) Thimble (d) none

12.08 Which of the following is not component of vernier caliper.-
(a) Graduated sleeve (b) Depth Gauge (c) Thimble (d) none

Question	Answer	Question	Answer	Question	Answer
12.01	a	12.04	a	12.07	b
12.02	c	12.05	a	12.08	c
12.03	b	12.06	c		

Limit, Fits and Surface Quality

13.01 A system which ensures that one component will assemble correctly with any mating component, both being chosen at random is called interchangeable system or a system of limits and fits. .
(a) True.(b) False

13.02 Selective assembly is that in which each part must be selected to fit its mating part-
(a) True.(b) False

13.03 Basic size is the size in relation to which higher commits of variation are determined-
(a) True.(b) False

13.04 Nominal size is used in the precision measurement of parts-
(a) True.(b) False

13.05 Upper deviation is positive or zero-
(a) True (b) False

13.06 Lower deviation is positive or zero-
(a) True (b) False

13.07 Tolerance is equal to algebraic difference between the upper and lower deviations and has an absolute value without sign-
(a) True (b) False

13.08 Tolerance is the difference between the maximum limit of size and minimum limit of size-
(a) True (b) False

13.09 $25+^{0.05}_{-0.03}$ is an example of unilateral tolerance

(a) True (b) False

13.10 In an example $40+^{0.08}_{-0.02}$ tolerance is 0.05mm

(a) True (b) False

13.11 Enveloping surface is male part-
(a) True (b) False

13.12 Enveloped surface is female part-
(a) True (b) False

13.13 The relation between the two parts where one is inserted into the other with a certain degree of tightness or looseness is known as a fit-
(a) True (b) False

13.14 When shaft is smaller than hole, the allowance is negative-
(a) True (b) False

13.15 In a clearance fit, there is a positive allowance between the largest possible shaft and the smallest possible hole-
(a) True (b) False

13.16 In an interference fit there is a positive allowance between the largest possible shaft and smallest possible hole-
(a) True (b) False

13.17 Transition fit does not guarantee either an interference or a clearance-
(a) True (b) False

Question	Answer	Question	Answer	Question	Answer	Question	Answer
13.01	a	13.06	b	13.10	a	13.14	b
13.02	a	13.07	a	13.11	a	13.15	
13.03	b	13.08	a	13.12	a	13.16	a
13.04	a	13.09	b	13.13	a	13.17	a
13.05	a						

Workshop Machines

14.01 The first useful from of lathe was made by H. Moudslay in the year……..
(a) 1700 (b) 1800. (c) 1900 (d) None

14.02 In lathe machine operation the work piece-
(a) Revolves .(b) Reciprocates (c) both (d) none

14.03 The bed provides inverted guide ways for controlled movement of……..-
(a) Carriage.(b) Tool post (c) both (d) none

14.04 The mechanism for driving and altering spindle speed is housed in……-
(a) Head Stock.(b) Tail stock(c) Carriage (d) none

14.05 For supporting the other end of work piece……is used-
(a) Head Stock.(b) Tail stock(c) Carriage (d) none

14.06 Cross slide is used to give…….feed to the tool-
(a) Longitudinal(b) Transverse (c) both (d) none

14.07 Graduated Circle base is carried by -
(a) Saddle (b) Cross slide (c) Compound rest (d) none

14.08 In facing operation tool is fed ……to the axis of rotation of the job-
(a) Perpendicular (b) Parallel (c) both (d) none

14.09 In straight turning is the lathe operation in which tool is fed…….to the lathe axis-
(a) Parallel (b) Perpendicular (c) both (d) none

14.10 In thread cutting longitudinal tool feed should be …….the pitch of the thread to be cuter re revolution of the work piece.
(a) Equal to (b) Less than (c) Greater than (d) none

14.11 Embossing a diamond shaped pattern on the surface of a work piece is the process of...-
(a) Turning (b) Chamfering (c) Knurling (d) Milling

Question	Answer	Question	Answer	Question	Answer	Question	Answer
14.01	b	14.04	a	14.07	c	14.10	a
14.02	a	14.05	b	14.08	a	14.11	c
14.03	a	14.06	b	14.09	a		

Workshop Machines

15.01 Hole is generated in the process……
(a) Reaming (b) Tapping (c) Drilling (d) None

15.02 In drill machine driving mechanisms are contained in…….-
(a) Head (b) Table (c) Column (d) None

15.03 The expression for Dia of Hole, D in terms of T (Dia of Tap and d (depth of Thread is..-
(a) T-d (b) T+2d (c) T-2d (d) T/2d

15.04 …… is a process used for enlarging /furnishing the hole previously drilled to give an accuracy of dimension-
(a) Reaming (b) Tapping (c) Milling (d) None

15.05 The materials used for making drill-bit is…….-
(a) HSS (b) MS (c) Cast Iron (d) None

15.06 …….machine is used to bore holes in large and heavy parts-
(a) Drilling (b) Lathe (c) Boring (d) None

15.07 Vertical turret lathe is a type of vertical…….machine-
(a) Lathe (b) Drilling (c) Boring (d) None

15.08 In a horizontal boring machine, the…….permit the work to be moved longitudinally on the bed-
(a) Head Stock (b) Saddle (c) Boring bar (d) None

15.09 The diameter of spindle 355mm is generally used in-
(a) Horizontal boring machine (b) Portable drilling machine
(c) Multiple spindle drilling machine (d) None

15.10 In provision boring machine the tool tips are made with……..
(a) Cemented carbide (b) Dismount tipped (c) Both (a) & (b) (d) None

15.11 In horizontal boring machine the tool revolves in a ……axis...-
(a) Horizontal (b) Vertical (c) both (d) none

15.12 The ..supports the cutter for boring operations-
(a) Head Stock (b) Boring bar (c) Saddle (d) none

Question	Answer	Question	Answer	Question	Answer	Question	Answer
15.01	c	15.04	a	15.07	c	15.10	c
15.02	a	15.05	a	15.08	b	15.11	a
15.03	c	15.06	c	15.09	a	15.12	b

Workshop Machines

16.01 Ram is a component of……..
(a) Shaper (b) Drilling machine (c) Boring Machine (d) none

16.02 In a shaper material cutting takes place in……..stroke-
(a) Forward (b) Reverse (c) both (d) none

16.03 In a shaper the forward to return stroke time ratio is-
(a) 3:1 (b) 3:2 (c) 2:1 (d) none

16.04 Shaper tool for hard materials is……..-
(a) of HSS (b) Carbide tipped (c) both (d) none

16.05 In a shaper …….reciprocates-
(a) Tool(b) Job (c) both (d) none

16.06 In a planer tools are held vertically in the tool head mounted on cross-rail-
(a) True (b) False

16.07 In a planer …….reciprocates-
(a) Tool(b) Job (c) both (d) none

16.08 In a shaper feed is given by the lateral movement of the…….-
(a) Tool(b) Job (c) both (d) none

16.09 More than one tool may be mounted in a…….-
(a) Shaper(b) Planner (c) both (d) none

16.10 For generating flap surfaces on heavy parts……..is most-
(a) Shaper (b) Planner (c) both (d) none

Question	Answer	Question	Answer	Question	Answer	Question	Answer
16.01	a	16.04	b	16.07	b	16.10	b
16.02	a	16.05	a	16.08	a		
16.03	b	16.06	a	16.09	b		

Workshop Machines

17.01 In a slotter the ram holding the tool reciprocates in a…….
(a) Horizontal axis (b) Vertical axis (c) both (d) none

17.02 In a vertical shaper the ram can be swiveled not more than……..to the vertical-
(a) 2^0 (b) 5^0 (c) 90^0 (d) none

17.03 Removal of large amount of metal takes place in……..-
(a) Puncher slotter (b) Precision slotter (c) both (d) none

17.04 The stroke length of ram of a general purpose or precision slotter usually ranges from 80 to 900mm. -
(a) True (b) False

17.05 In a slotter tool, cutting pressure acts perpendicular to the tool length-
(a) True (b) False

17.06 In a slotter tool, no side rake is given-
(a) True (b) False

17.07 Grinding is used to remove comparatively little material 0.25mm to 0.5mm.-
(a) True (b) False

17.08 Silicon carbide (SiC) is a ……..Abrasives.-
(a) Natural (b) Artificial (c) both (d) none

17.09 Vitrified bond is denoted by the letter 'V'-
(a) True (b) False

17.10 Grit (Grain size denoted by 80 is…….-
(a) Coarse (b) Medium (c) Fine (d) Very fine

17.11 Hardness if bond denoted by letter Q represents……..grade-
(a) Soft (b) Medium (c) Hard (d) none

17.12 Structure denoted by a digit less than equal to 8 represents……..structure.-
(a) Open (b) Dense (c) both (d) none

17.13 A grinding wheel is marked as WA 46K 5V17. The letter 'A' represents Abrasive type Al_20_3.-
(a) True (b) False

Question	Answer	Question	Answer	Question	Answer	Question	Answer
17.01	b	17.04	a	17.08	b	17.12	a
17.02	b	17.05	b	17.09	a	17.13	a
17.03	a	17.06	a	17.10	c		
17.04	a	17.07	a	17.11	c		

Workshop Machines

18.01 Multiple tooth cutters is used in-
(a) Lathe (b) Slotter(c) Milling Machine (d) none of these

18.02 Knee is a component of a ……..-
(a) Lathe (b) Slotter (c) Milling Machine (d) none

18.03 Arbor is a component of a column and knee type milling machine-
(a) True (b) False (c) both (d) none

18.04 The most common and accurate method of Gear manufacturing is-
(a) Casting(b) Stamping (c) Machining (d) none

18.05 The end mills are used to cut gears of large modules from 20mm and larger.-
(a) True (b) False

18.06 The ….involves the production of all the teeth on a gear simultaneously by a ring of formed blades--
(a) Shear speed process (b) Template process (c) Generating process (d) none

18.07 The template method is employed for producing ……spur gear teeth..-
(a) Very large (b) Small (c) medium (d) none

18.08 ……..Gears cannot be produced by generating method-
(a) Spur (b) Cycloidal (c) both (d) none

18.09 In formed cutter method accuracy is……..-
(a) Very poor (b) Very fine (c) both (d) none

18.10 Mathematically correct tooth profile of gears produced in……..methods.-
(a) Generating (b) Template (c) Formed cutter (d) none

Question	Answer	Question	Answer	Question	Answer	Question	Answer
18.01	c	18.04	c	18.07	a	18.10	a
18.02	c	18.05	a	18.08	b		
18.03	a	18.06	a	18.09	a		

Workshop Machines

19.01 In press, metal is formed to the desired shape without removal of chips-
(a) True (b) False

19.02 A punch is usually the……member of the press tool which is mounted on the lower end of the ram-
(a) Upper (b) Lower (c) both (d) none

19.03 A die has an opening or cavity to receive the punch-
(a) True (b) False

19.04 Punches and dies are generally made of--
(a) HSS (b) High Carbon (c) Steel (HCS) (d) none

19.05 In the case of punching, a……hole is produced.-
(a) Cylindrical (b) Other than cylindrical (c) both (d) none

19.06 In……the metal is stressed in both tension and compression at the two sides of the neutral axis--
(a) Shearing (b) Bending (c) Twisting (d) none

19.07 In a compound die two or more cutting operation are accomplished at one station of a press in every stroke of the ram...-
(a) True (b) False

19.08 A fixture is a device which guides the cutting tools-
(a) True (b) False

19.09 Jigs are generally heavier than fixtures.
(a) True (b) False

19.10 The use of jigs and fixtures requires marking outs measuring and other setting methods before machining-
(a) True (b) False

Question	Answer	Question	Answer	Question	Answer	Question	Answer
19.01	a	19.04	a	19.07	a	19.10	b
19.02	a	19.05	a	19.08	b		
19.03	a	19.06	b	19.09	b		

Workshop Machines

20.01 Contoured surfaces cannot be produced by broaching-
(a) True (b) False

20.02 A broach is a multiple edge cutting tools-
(a) True (b) False

20.03 Broaching is possible only on internal surfaces-
(a) True (b) False

20.04 ……..broaches are used extensively in the broaching of cast iron-
(a) Tungsten (b) Carbide (c) both (d) none

20.05 Nearly all horizontal broaching machines are……..type-
(a) Pull (b) Push (c) both (d) none

20.06 In a broaching machine specification 1000-10, stroke length is-
(a) 1000mm (b) 1000x10mm (c) 10m (d) none

20.07 In sawing, feed may be given at…….-
(a) Only saw (b) The work (c) Earthier saw or work (d) none

20.08 Saws are represented by power hacksaws-
(a) Reciprocating (b) Circular (c) rectangular (d) none

20.09 The three tooth sets are……..
(a) Raker, alternate, wavy (b) Standard, skip and hook (c) both (d) none

20.10 The three tooth forms are…….-
(a) Raker, alternate, wavy (b) Standard, skip and hook

Question	Answer	Question	Answer	Question	Answer	Question	Answer
20.01	b	20.04	b	20.07	c	20.10	
20.02	a	20.05	a	20.08			
20.03	b	20.06	a	20.09	a		

Workshop Machines

21.01 M/s Plasser (India) Pvt. Ltd. Is situated at…….-
(a) Faridabad (b) Gurgaon (c) Noida (d) Delhi

21.02 M/s Plasser (India) Pvt. Ltd. is produces only tamping machines---
(a) True (b) False

21.03 M/s Plasser (India) Pvt. Ltd. has manufacturing lines (Track)-
(a) 2 (b) 3 (c) 5 (d) none

21.04 There is no separate machine-shop at M/s Plasser (India) Pvt.Ltd.-
(a) True (b) False

21.05 Radial drill machine is available at M/s Plasser (India) Pvt. Ltd. Machine shop.-
(a) True (b) False

21.06 Cropping machine is used to cut……..-
(a) Hoses (b) Metal Sheets (c) Rubber sheets (d) none

21.07 MIG welding uses……electrodes-
(a) Consumable (b) Non-consumable (c) both (d) none

21.08 Hose fittings are fitted on……..machine-
(a) Cropping (b) Crimping (c) Press (d) none

21.09 CNC lathe is available at M/s Plasser (India) Pvt. Ltd.
(a) True (b) False

Question	Answer	Question	Answer	Question	Answer
21.01	a	21.04	b	21.07	a
21.02	b	21.05	a	21.08	b
21.03	a	21.06	b	21.09	a

Threads

24.01 Thread is nothing but a helical grove-
(a) True (b) False

24.02 In India …….hand threads are mostly used-
(a) Left (b) Right (c) both (d) none

24.03 Pitch Dia = (Major Dia) – (……)
(a) Single Depth of Thread (b) Double Depth of Thread (c) both (d) none

24.04 In case of single start thread,.-
(a) Pitch = lead (b) Pitch < Lead (c) Pitch > Lead (d) none

24.05 The angle of inclination of thread is called……...-
(a) Angle of Thread (b) Helix Angle (c) both (d) none

24.06 Included angle of BSW Thread is 55^0 and routes and crest are…….-
(a) Rounded (b) Angular (c) Parallel (d) none

24.07 British Standard fine thread have….effective and core diameters than the BSW threads-
(a) Larger (b) Smaller (c) both (d) none

24.08 American National Thread has an included angle of 600 and crests and routes of this thread are……..-
(a) Rounded (b) Parallel (c) both (d) none

24.09 International Standard Thread (Unified Thread) has roots.
(a) Rounded (b) Parallel to axis (c) both (d) none

24.10 In the Metric thread designation M10 x 1.5 the term 10 indicates
(a) Nominal dia in mm (b) Threads per cm (c) both (d) none

24.11 The depth and thickness of the square thread are each equal to half of the pitch
(a) True (b) False

24.12 Acme thread is thicker at the root and less thick at the crest-
(a) True (b) False

24.13 Lead Screw of the lathe are provided with……thread-
(a) Acme (b) Square (c) both (d) none

24.14 Coupler of railway carriage and electrical bulbs use …..thread-
(a) V (b) Knuckle (c) Buttress (d) none

24.15 Buttress thread is suitable only when the force acts entirely in one direction-
(a) True (b) False

Question	Answer	Question	Answer	Question	Answer	Question	Answer
24.01	a	24.05	b	24.09	a	24.13	a
24.02	b	24.06	a	24.10	a	24.14	b
24.03	a	24.07	a	24.11	a	24.15	a
24.04	a	24.08	b	24.12	a		

Quality Controls

25.01 Inspection is tool of quality control-
(a) True (b) False

25.02 In charts for X and R, the term X represents-
(a) Average (b) Range (c) Fraction defective (d) none

25.03 Control charts for attributes is called……..
(a) p charts (b) c chart (c) both (d) none

25.04 In c chart, there are 200 defects in 25 machines then LCLc.-
(a) 8 (b) 16.5 (c) 0 (d) 200

25.05 In c chart, there are 200 defects in 25 machines then LCLs =…….-
(a) 8 (b) 16.5 (c) 0 (d) 200

25.06 In c chart, there are 200 defects in 25 machines then LCLs =…….-
(a) 8 (b) 16.5 (c) 0 (d) 200

25.07 ISO 9002, ISO 9002, ISO 9003 detail the…….-
(a) Requirements (b) Guidelines (c) both (d) none

25.08 ……..Quality system is the model for quality assurance in final inspection and test-
(a) ISO 9001 (b) ISO 9002 (c) ISO 9003 (d) none

25.09 ISO……..is a family of international standards for quality management and assurance-
(a) 9000 (b) 9004 (c) 9001 (d) none

25.10 In its most basic form the ISO 9000 requires that you: Say what you do, Do what you say record what you do-
(a) True (b) False

Question	Answer	Question	Answer	Question	Answer
25.01	a	25.05	b	25.09	a
25.02	a	25.06	c	25.10	a
25.03	a	25.07	a		
25.04	b	25.08	c		