

# **Polymer And Plastic Engineering Department**

## **Question bank**

### **Design of Mould (old pattern)**

**DPP3203**

**VI th sem**

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**By Prof.S.A.Dawale**

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- 1) Following are the types of compression mould
  - a. Flash
  - b. Horizontal semipositive
  - c. Vertical semipositive
  - d. All above
- 2) Thermoset materials are used in compression mould
  - a. True
  - b. False
- 3) Following is the factor consider while designing compression mould
  - a. Type of product
  - b. Size of product
  - c. Molding material
  - d. All above
- 4) Molding Materials are compressed in between core and cavity in compression mould.
  - a. True
  - b. False
- 5) Following types of compression mould gives high strength product.
  - a. Fully positive
  - b. Vertical semipositive
  - c. Horizontal semipositive
  - d. Flash type

- 6) Plastic material with fibre can be used in compression mould.
- True
  - False
- 7) Following mold making material is used in CM.
- CAST iron
  - Tool steel
  - HCTS
  - All above
- 8) More amount of flash develop in following types of CM.
- Flash
  - Vertical semipositive
  - Horizontal
  - Fully positive
- 9) Function of pressure pad used in CM.
- Control wall thickness of product.
  - Proper ejection
  - Cooling
  - None of above
- 10) Function of flash escapment area is
- To provide area for flash
  - For cooling
  - None of above
  - All above
- 11) More dimensional tolerances in product can be achieve by using
- Flash
  - Vertical semipositive
  - Horizontal
  - Fully positive
- 12) Minimum clearance between force and cavity produce high quality product.
- True
  - False

- 13) Cavity surface should be highly polished and finished in CM.
- TRUE
  - FALSE
- 14) More amount of flash develop in CM to maintain the quality.
- True
  - False
- 15) More flow restriction of plasticized material increases.
- Strength of product
  - Uniform flow
  - Stress
  - None of above
- 16) Following ejection techniques is used in CM.
- PIN TYPE
  - Stripper plate
  - Air ejection
  - All above
- 17) Compression mould size depends on.
- Product size
  - Type of ejection
  - Type of cooling
  - All above
- 18) Cooling system present in CM.
- TRUE
  - FALSE
- 19) Large product produce in CM
- True
  - False
- 20) High pressure is required in compression mould.
- True
  - False
- 21) Following are the types of Transfer mould.

- a. Pot type
  - b. Auxiliary ram type
  - c. Loose plate
  - d. All above
- 22) Cooling system are present in transfer mould.
- a. True
  - b. False
- 23) Feed system consists of
- a. Sprue
  - b. Runner
  - c. Gate
  - d. All above
- 24) Multicavity can be constructed in TM
- a. TRUE
  - b. FLASE
- 25) FUNCTION of ram/plunger/force in TM is.
- a. To transfer the material
  - b. To eject the product
  - c. For cooling
  - d. All above
- 26) Function of cull pickup is.
- a. To collect the excess material
  - b. To remove sprue
  - c. Both A and B
  - d. None of above
- 27) Function of loading chamber
- a. To provide space for plastic material
  - b. For cooling
  - c. For ejection
  - d. All above
- 28) Orifice in loose plate acts as a gate in loose plate TM
- a. True
  - b. False

- 29) Why two number of loose plate used at the time of production?
- To increase production rate
  - To reduce production rate
  - Both of A and B
  - None of above
- 30) Feed system and product are separately ejected in pot type TM
- TRUE
  - FALSE
- 31) Function of plunger is to
- Transfer the material into cavity
  - Cooling
  - Ejection
  - None of above
- 32) Following ejection techniques used in TM
- STRIPPER PALTE
  - PIN TYPE
  - BOTH A and B
  - None of above
- 33) Small and large plastic product can be produce in TM
- TRUE
  - FALSE.
- 34) Glass fibre and plastic are used in TM
- TRUE
  - FALSE.
- 35) HIGH quality product can be produce in following mould
- Compression mould
  - Transfer mould
  - Both
  - None of above
- 36) Switches and button are produce in transfer mould.
- True
  - False
- 37) Following are the wastage of material in TM.
- Runner

- b. Gate
  - c. Sprue
  - d. All above
- 38) A REVERSE TAPER SPRUE is used in TM.
- a. True
  - b. False
- 39) Following number of cavities can be design in TM.
- a. SINGLE CAVITY
  - b. FOUR CAVITY
  - c. TEN CAVITY
  - d. ALL ABOVE
- 40) Following mould are difficult for design and manufacturing
- a. Compression
  - b. Transfer
  - c. Both
  - d. None of above
- 41) Following system are present in Injection mould.
- a. Feed system
  - b. Ejection system
  - c. Cooling system
  - d. All above
- 42) Complicated and integrated design product can be produce in IM.
- a. TRUE
  - b. FALSE
- 43) FOLLOWING are the type of injection mould.
- a. Two plate
  - b. Three plate
  - c. Hot runner
  - d. All above
- 44) Following are correct sentence .
- a. One parting line is present in two plate IM.
  - b. TWO parting line is present in two plate IM.
  - c. THREE parting line is present in two plate IM.

- d. **FOUR parting line is present in two plate IM.**
- 45) **Side gate location can be possible in two plate injection mould.**
- a. **True**
  - b. **False**
- 46) **Centre gate location can be possible in three plate IM.**
- a. **TRUE**
  - b. **FALSE**
- 47) **Ejection of product and feed system carried out from one parting line or opening in which mould.**
- a. **Two plate**
  - b. **Three plate**
  - c. **Both**
  - d. **None above**
- 48) **Following are the types of ejection in IM.**
- a. **PIN TYPE**
  - b. **AIR EJECTION**
  - c. **BLADE EJECTION**
  - d. **BAR EJECTION**
- 49) **WHAT is gate mark in IM?**
- a. **Mark rest on the product due to cutting of gate from runner**
  - b. **Mark of ejection**
  - c. **Mark of coolong**
  - d. **All above**
- 50) **Following factor should consider while designing IM.**

- a. SHRINKAGE OF PLASTIC MATERIAL
  - b. TENSILE STRENGTH
  - c. TEMPERATURE OF MATERIAL
  - d. NONE OF ABOVE
- 51) Following are the mould making material for cavity insert
- a. MS
  - b. CI
  - c. TOOL STEEL
  - d. ALL ABOVE.
- 52) Following are the mould making material are used for cavity plate.
- a. MS
  - b. EN -18
  - c. TOOL STEEL
  - d. ALL ABOVE
- 53) Following cooling system used in IM.
- a. U –CKT
  - b. Rectangular ckt
  - c. Z ckt
  - d. All above
- 54) Following injection gate used for COMPACT DISK
- a. PIN GATE
  - b. TAB GATE
  - c. DISK GATE
  - d. NONE OF ABOVE.
- 55) Following injection gate used for plastic BUCKET
- a. SPRUE GATE
  - b. PINPOINT GATE
  - c. RING GATE
  - d. NONE OF ABOVE.
- 56) Following are the type of runner.
- a. Circular
  - b. Trapezoidal



- c. **Modified trapezoidal**
  - d. **All above**
- 57) **Mould designer preferred mostly this type of runner**
- a. **Circular**
  - b. **Trapezoidal**
  - c. **Modified trapezoidal**
  - d. **All above**
- 58) **Weld line are formed due to wrong selection of...**
- a. **Gate location**
  - b. **Sprue**
  - c. **Runner**
  - d. **None of above**
- 59) **How many number of guide Piller used in IM?**
- a. **1**
  - b. **2**
  - c. **3**
  - d. **4.**
- 60) **Function of guide pillar is to**
- a. **Aline core and cavity**
  - b. **Aline machine**
  - c. **Both**
  - d. **None of above**
- 61) **Function of guide bush is**
- a. **Protect from wear and tear**
  - b. **Alignment**
  - c. **Both**
  - d. **None of above**
- 62) **Function of locating ring is**
- a. **Alignment between machine and mould**
  - b. **Cooling**
  - c. **Ejection**

- d. feeding
- 63) to collect the unwanted solid particles is a function of ..
  - a. cold slug well
  - b. sprue
  - c. runner
  - d. cavity plate
- 64) guide pillars are made up of...
  - a. MS
  - b. CI
  - c. TOOL STEEL
  - d. EN-18
- 65) FUNCTION of spacer block is ...
  - a. Provide space for ejector plate assembly
  - b. Cooling
  - c. Ejection
  - d. None of above
- 66) Balance runner layout is that wher....
  - a. All cavities fill at same time
  - b. All cavities fill at different time
  - c. Both above
  - d. None of above.
- 67) Function of venting is ...
  - a. To remove entrapped air
  - b. To remove product
  - c. Both above
  - d. None of above
- 68) Function of ejector rod is...
  - a. To actuate the ejector plate assembly
  - b. For cooling
  - c. For feeding
  - d. None of above.
- 69) DLO stand for
  - a. Day light opening

- b. day and night opening
  - c. delay of opening
  - d. none of above.
- 70) In Hot runner mould runner are not ejected.
- a. True
  - b. False
- 71) Following materials are used for making blow mould.
- a. Aluminium
  - b. Tool steel
  - c. Both
  - d. None of the above
- 72) Following are the location of venting in blow mould
- i. Bottom of mould
  - ii. Middle surface
  - iii. Neck insert
  - iv. All above
- 73) Function of neck insert is.
- a. To form upper threaded surface of product
  - b. To form handle
  - c. To form wall thickness
  - d. All above
- 74) Function of pinch off insert is
- a. To squeezed the parison
  - b. To weld the parison
  - c. To cut the parison
  - d. All above
- 75) Function of flash pocket is

- a. To collect flash
  - b. For cooling
  - c. For ejection
  - d. All above
- 76) Function of guide pin is
- a. Proper alignment between two cavities half
  - b. Form surface
  - c. Ejection
  - d. All above
- 77) Preform is a....
- a. Test tube like shape
  - b. Rectangular shape
  - c. Hexagonal shape
  - d. All above
- 78) Perform made using following ....
- a. Injection molding
  - b. Extrusion
  - c. Both
  - d. All above
- 79) Hollow product manufactured using ...
- a. Injection molding
  - b. Extrusion
  - c. Blow molding
  - d. All above.
- 80) Blow mould are easy for construction and designing.
- a. True
  - b. False

- 81) Blow mould are cheaper in cost as compared to injection mould.
- True
  - False
- 82) Compressed air are used to blow parison in BM.
- TRUE
  - FALSE
- 83) Following is a correct sentence
- Venting channels should not be too large or too small
  - Big venting channel preferred
  - Both are correct
  - Both are incorrect
- 84) ISBM Stand for
- Injection stretch blow molding
  - Extrusion stretch blow molding
  - Blow molding
  - All above
- 85) ESBM Stand for ..
- Extrusion stretch blow molding
  - Blow molding
  - Injection molding
  - Extrusion molding
- 86) High strength and low weight can be possible in stretch blow molding
- True
  - False .
- 87) Following statement is true related to SBM...
- Wastage of material can be decreases
  - Low strength product
  - Both a and b
  - None of above .
- 88) Thin wall thickness product produce using ISBM

- a. TRUE
  - b. FALSE.
- 89) FUNCTION of cooling in blow mould is...
- a. To solidify parison
  - b. To solidify plastic material
  - c. Both
  - d. All above
- 90) Plastic Bottle with handle can not produce using ESBM
- a. TRUE
  - b. FALSE.
- 91) Following are the types of pipe die.
- a. Inline
  - b. Offset
  - c. Both a and b
  - d. None of above
- 92) Following are the parts present in offset pipe die
- a. Mandrel
  - b. Die ring
  - c. Die bush
  - d. All above
- 93) Function of mandrel is..
- a. To form inner shape of product
  - b. To form outer shape
  - c. Both of above
  - d. None of above.
- 94) Mandrel carrier function is...
- a. To carry mandrel.
  - b. To hold mandrel
  - c. Both above
  - d. None of above
- 95) Die axes and machine axes are same in ...
- a. Offset die
  - b. Inline die
  - c. None of above
  - d. All above

- 96) Function of die ring is...
- To hold die bush
  - To hold mandrel
  - To hold screw
  - To hold rod
- 97) Function of die bush is ...
- To control wall thickness of pipe
  - For cooling
  - For ejection
  - For feeding
- 98) Mandrel carrier used for
- Holding mandrel.
  - Convert turbulent flow into laminar flow
  - Both a and b
  - None of above
- 99) Taper portion in die called as..
- Land length
  - Approach section
  - Both of above
  - None of above.
- 100) Die bush is adjustable in pipe die.
- True
  - False
- 101) Die is attached with the machine by...
- Adapter
  - Die body
  - Mandrel
  - Die ring.
- 102) Following are the types of sheet die.
- Fish tail die
  - Coat hanger die
  - T die

- d. All above
- 103) Manifold is a portion in die where.
  - a. Plastic material divert in die
  - b. Eject the material
  - c. Cool the material
  - d. All above
- 104) Sheet thickness control with the help of ...
  - a. Adjusting die bush
  - b. Die ring
  - c. Mandrel
  - d. adapter
- 105) Plastic Wire can be produce by using..
  - a. Wire and cable coating die.
  - b. Coat hanger die
  - c. Inline die
  - d. Offset die
- 106) Following are the types of film die.
  - a. Center fed die
  - b. Bottom fed die
  - c. Both above
  - d. None of above
- 107) Material are fed at center....
  - a. Center fed die
  - b. Bottom fed
  - c. Side die
  - d. All above
- 108) A 90 degree flow diversion found in.
  - a. Side fed die
  - b. Center fed
  - c. Both a and b
  - d. None of above
- 109) Cooling system present in center fed die
  - a. True
  - b. False
- 110) Following materials are used for making film die.

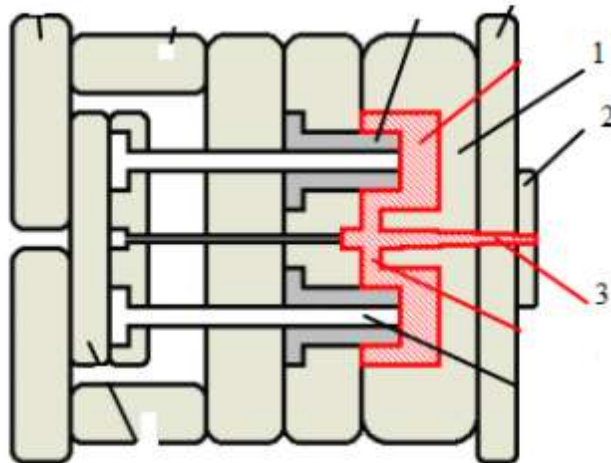


- a. MS
  - b. CI
  - c. TS
  - d. ALL above
- 111) Following types of heaters are used in mould and dies
- a. Band heaters
  - b. Cartridge heaters
  - c. Both above
  - d. None of above
- 112) Following steps are involve at the end of machining of mould.
- a. Bench fitting
  - b. Machining
  - c. Polishining
  - d. All above
- 113) Lathe machining are used for making
- a. Guide piller
  - b. Sprue bush
  - c. Locating ring
  - d. Die bush .
- 114) Following operation are performed in lathe machine
- a. Turning
  - b. Grinding
  - c. Buffing
  - d. All above.
- 115) Cavity surface should be highly polished and finished
- a. True
  - b. False
- 116) Following operation performed in milling machine
- a. Reducing the thickness of plate
  - b. Making cooling channels
  - c. Both above
  - d. None of above.
- 117) Following is a one of polishing techniques

- a. Buffing
  - b. Diamond polishing
  - c. Both A and B
  - d. None of above
- 118) Grinding machining used for..
- a. Polishing
  - b. Thickness levelling
  - c. Finishing
  - d. All above.
- 119) Hobbing is process in which many number of cavities are produce by pressing/forcing operating.
- a. True
  - b. False
- 120) Following hob and mold material are used.
- a. Hard hob and soft mold material
  - b. Soft hob and harm old material
  - c. Both A and B
  - d. None of above .
- 121) EDM stand for..
- a. Electro Discharge machining
  - b. Electric Discharge machining
  - c. Excentric Discharge machining
  - d. None of above.
- 122) Material are removed with the help of electric spark in ...
- a. EDM
  - b. MILLING
  - c. Lathe
  - d. buffing
- 123) Small hole up to 2mm can be machine ith the help of ..
- a. EDM
  - b. LATHE
  - c. Drilling
  - d. milling .
- 124) Irregular shape cavity can be machine with the help of

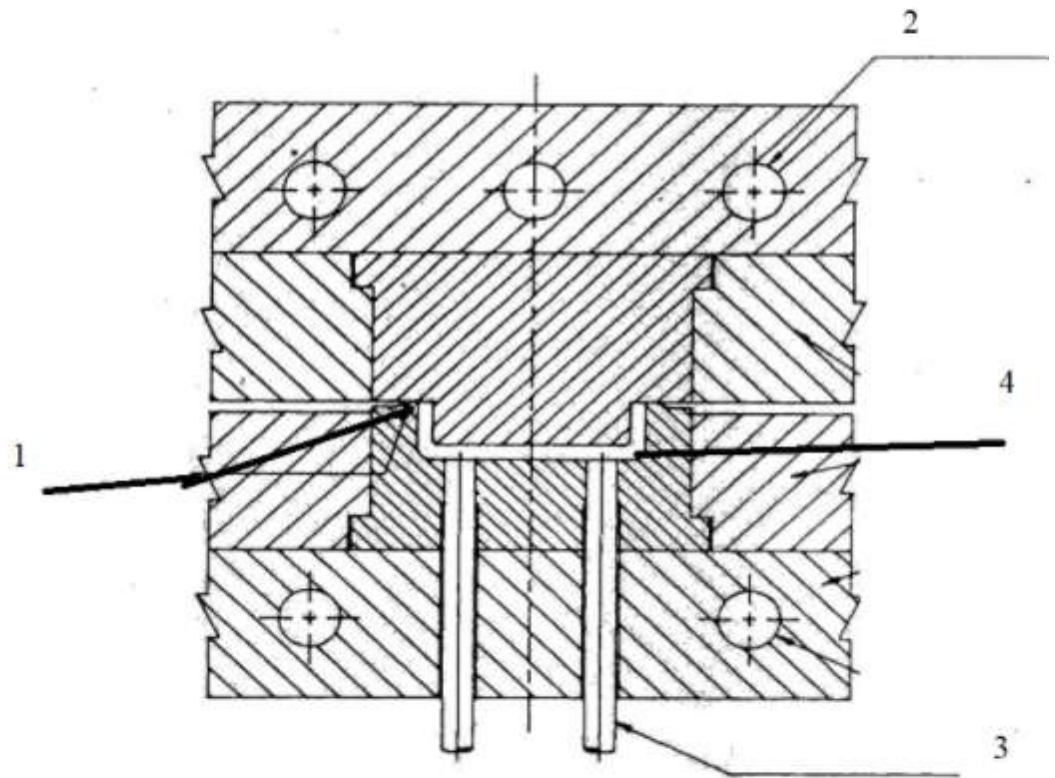
- a. EDM
  - b. LATHE
  - c. Drilling
  - d. milling
- 125) Trial of mould should be taken on injection machine after making the mould.
- a. True
  - b. False
- 126) Following software are used to design mould.
- a. Auto cad
  - b. MOL flow
  - c. CATIEA
  - d. ALL ABOVE
- 127) SILK cloth may be used for polishing the cavity of mold.
- a. True
  - b. False
- 128) Portable grinding tools are used for polishing
- a. True
  - b. False
- 129) Steam heating are used in following mold.
- a. Rotational mould
  - b. Injection mould
  - c. Blow mould
  - d. All above
- 130) Taper on core will be machine with the help of
- a. Lathe
  - b. Milling
  - c. EDM
  - d. BORING

131) Identify following parts in injection mould, 1,2 and 3 show



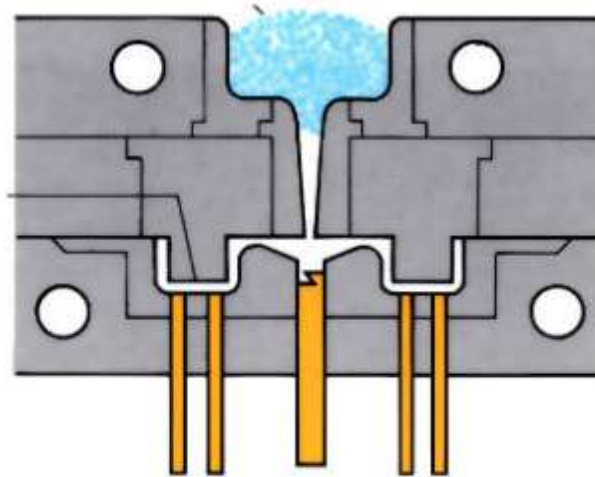
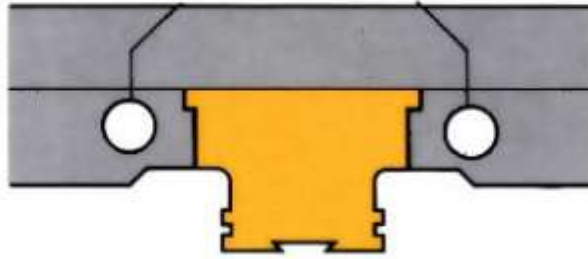
- a. 1 - sprue, 2-back plate, 3- runner
- b. 1 - cavity plate, 2- locating ring, 3- sprue bush
- c. cavity plate, 2- register ring, 3- sprue
- d. cavity plate, 2- register ring, 3- RUNNER

132) identify the following parts in Compression mould (may be one or more answer)



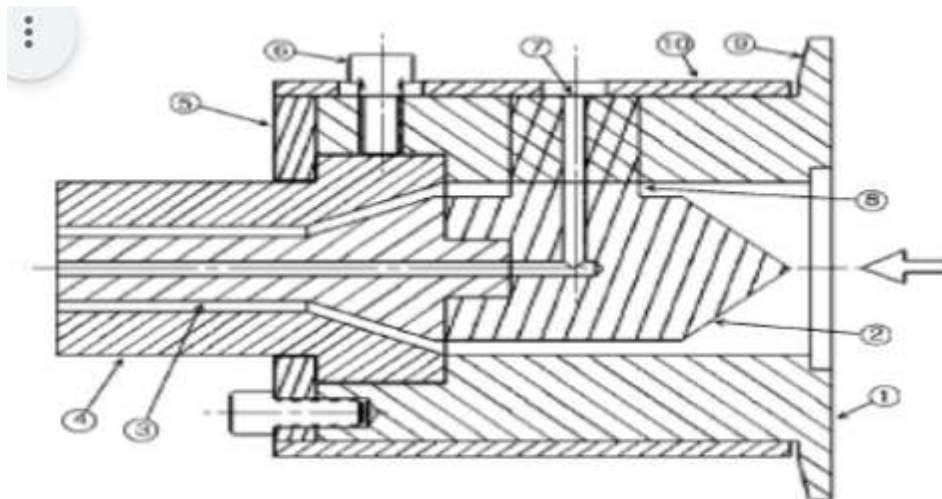
- a. 1-flash area 2- cooling 3- ejector pin 4- cavity  
 b. 1-flash area 2- heating 3- ejector rod 4- cavity  
 c. 1-parting line 2-heating 3-ejector pin 4-flash  
 d. 1-flash area 2-heating 3-ejector pin 4 - cavity

133) identify following type of mould (may be one or more answer)



- a. two plate injection mould
- b. pot type transfer mould
- c. loose plate transfer mould
- d. positive compression mould

134) following figure indicate



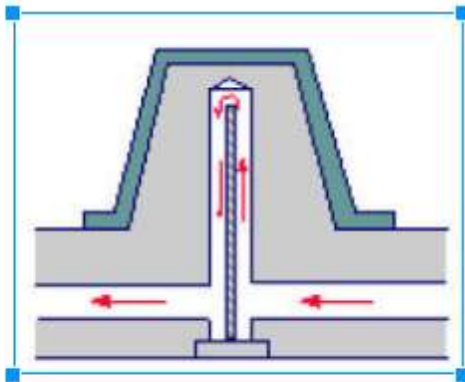
- a. inline pipe die
- b. offset pipe die
- c. fish tail die
- d. film die

135) identify injection gate (may be one or more answer)



- a. tunnel gate
- b. PINPOINT GATE
- c. TAB GATE
- d. RING GATE

136) Identify cooling in IM



- a. BUBBLER
- b. HELICAL
- c. BAFFLE
- d. SPIRAL

137) FUNCTION OF ejector plate is..

- a. Eject the product
- b. Cooling
- c. Feeding
- d. All above

138) This type of ejection did not rest ejector mark on product

- a. Air ejection
- b. Pin ejection
- c. Both above
- d. None of above

139) Locating ring also called as ..

- a. Register ring
- b. Cavity plate
- c. Core plate
- d. Stop pin

140) Function of choker bar is to...

- a. Restrict the flow
- b. Cooling
- c. Ejection
- d. Feeding

- 141) Continuous shape product manufactured with the help of
- Injection mould
  - Extrusion
  - Blow
  - All above
- 142) Feed system present in blow mould
- True
  - False
- 143) Number of cavities in IM depends/calculated on the basis of
- Shot capacity
  - Plasticizing capacity
  - Clamping capacity
  - All above
- 144) Pinch off used in injection mould
- True
  - False
- 145) Following factors are consider while selecting types of gate
- Gate location
  - No of cavities
  - Gate mark
  - All above
- 146) Clearance between core and cavity called
- Impression
  - Guide piller
  - Guide bush
  - Ejector plate
- 147) Extra plastic attached with product called
- Cavity
  - Flash
  - DLO
  - STOPPER PIN
- 148) Taper are given on core for
- Easy ejection
  - Easy cooling
  - Easy feeding
  - All above
- 149) Why product always rest on core side?
- Due to shrinkage of material
  - Due to cooling
  - Due to material properties
  - All above
- 150) Screwing operation will be performed on



- a. Lathe
  - b. Milling
  - c. EDM
  - d. All above
- 151) Plastic material with fibre can be used in compression mould.**
- a. True
  - b. False
- 152) Following mold making material is used in CM.**
- a. CAST iron
  - b. Tool steel
  - c. HCTS
  - d. All above
- 153) More amount of flash develop in following types of CM.**
- a. Flash
  - b. Vertical semipositive
  - c. Horizontal
  - d. Fully positive
- 154) Function of pressure pad used in CM.**
- a. Control wall thickness of product.
  - b. Proper ejection
  - c. Cooling
  - d. None of above
- 155) Function of flash escapment area is**
- a. To provide area for flash
  - b. For cooling
  - c. None of above
  - d. All above
- 156) More diamensional tolerances in product can be achieve by using**
- i. Flash
  - ii. Vertical semipositive
  - iii. Horizontal
  - iv. Fully positive
- 157) Minimum clearance between force and cavity produce high quality product.**

- a. True
  - b. False
- 158) Cavity surface should be highly polished and finished in CM.
- a. TRUE
  - b. FALSE
- 159) More amount of flash develop in CM to maintain the quality.
- a. True
  - b. False
- 160) More flow restriction of plasticized material increases.
- a. Strength of product
  - b. Uniform flow
  - c. Stress
  - d. None of above
- 161) Following ejection techniques is used in CM.
- a. PIN TYPE
  - b. Stripper plate
  - c. Air ejection
  - d. All above
- 162) Compression mould size depends on.
- a. Product size
  - b. Type of ejection
  - c. Type of cooling
  - d. All above
- 163) Cooling system present in CM.
- i. TRUE
  - ii. FALSE
- 164) Large product produce in CM
- a. True
  - b. False
- 165) High pressure is required in compression mould.
- a. True
  - b. False

- 166) Following are the types of Transfer mould.
- Pot type
  - Auxiliary ram type
  - Loose plate
  - All above
- 167) Plastic Wire can be produce by using..
- Wire and cable coating die.
  - Coat hanger die
  - Inline die
  - Offset die
- 168) Following are the types of film die.
- Center fed die
  - Bottom fed die
  - Both above
  - None of above
- 169) Material are fed at center....
- Center fed die
  - Bottom fed
  - Side die
  - All above
- 170) A 90 degree flow diversion found in.
- Side fed die
  - Center fed
  - Both a and b
  - None of above
- 171) Cooling system present in center fed die
- True
  - False
- 172) Following materials are used for making film die.
- MS
  - CI
  - TS
  - ALL above
- 173) Following types of heaters are used in mould and dies

- a. Band heaters
  - b. Cartridge heaters
  - c. Both above
  - d. None of above
- 174) Following steps are involve at the end of machining of mould.
- a. Bench fitting
  - b. Machining
  - c. Polishining
  - d. All above
- 175) Lathe machining are used for making
- a. Guide piller
  - b. Sprue bush
  - c. Locating ring
  - d. Die bush .
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  - d. None of above.
- 179) Following is a one of polishing techniques
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  - c. Finishing
  - d. All above.
- 181) Hobbing is process in which many number of cavities are produce by pressing/forcing operating.
- a. True
  - b. False
- 182) Following hob and mold material are used.
- a. Hard hob and soft mold material
  - b. Soft hob and harm old material
  - c. Both A and B
  - d. None of above .
- 183) EDM stand for..
- a. Electro Discharge machining
  - b. Electric Discharge machining
  - c. Excentric Discharge machining
  - d. None of above.
- 184) Material are removed with the help of electric spark in ...
- a. EDM
  - b. MILLING
  - c. Lathe
  - d. buffing
- 185) Small hole up to 2mm can be machine ith the help of ..
- a. EDM
  - b. LATHE
  - c. Drilling
  - d. milling .
- 186) Irregular shape cavity can be machine with the help of
- a. EDM
  - b. LATHE
  - c. Drilling
  - d. milling

- 187) Trial of mould should be taken on injection machine after making the mould.
- True
  - False
- 188) FUNCTION of cooling in blow mould is...
- To solidify parison
  - To solidify plastic material
  - Both
  - All above
- 189) Plastic Bottle with handle can not produce using ESBM
- TRUE
  - FALSE.
- 190) Following are the types of pipe die.
- Inline
  - Offset
  - Both a and b
  - None of above
- 191) Following are the parts present in offset pipe die
- Mandrel
  - Die ring
  - Die bush
  - All above
- 192) Continuous shape product manufactured with the help of
- Injection mould
  - Extrusion
  - Blow
  - All above
- 193) Feed system present in blow mould
- True
  - False
- 194) Number of cavities in IM depends/calculated on the basis of
- Shot capacity
  - Plasticizing capacity
  - Clamping capacity
  - All above
- 195) Pinch off used in injection mould
- True
  - False
- 196) Following factors are consider while selecting types of gate

- a. Gate location
  - b. No of cavities
  - c. Gate mark
  - d. All above
- 197) Clearance between core and cavity called
- a. Impression
  - b. Guide pillar
  - c. Guide bush
  - d. Ejector plate
- 198) Extra plastic attached with product called
- a. Cavity
  - b. Flash
  - c. DLO
  - d. STOPPER PIN
- 199) Taper are given on core for
- a. Easy ejection
  - b. Easy cooling
  - c. Easy feeding
  - d. All above
- 200) **guide pillars are made up of...**
- a. **MS**
  - b. **CI**
  - c. **TOOL STEEL**
  - d. **EN-18**