

**Polymer And Plastic Engineering Department**

**Question bank**

**Finishing and Joining of Plastic**

**DPP3201**

**VI th SEM**

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

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**1) A device that is used to mechanically join two or more object together is called**

- A. Mechanical joining**
- B. Adhesive joining**
- C. Coating**
- D. All above**

**2) Type of threaded fasteners**

- A. Bolt**
- B. screw**
- C. studs**
- D. all above**

**3) Following are not advantages of adhesives bonding.**

- A. Good shock absorption**
- B. Provision of large, stress bearing area**
- C. Good strength to weight ratio**
- D. Significant cure time may be required**

**4) Factors influencing the mechanical joints**

- A. Types of loading**
- B. Stress concentration**
- C. Method of hole making**
- D. Drilling induced damage**
- E. All above**

**5) Write four advantages of mechanical joints**

- A. Very strong**
- B. Disassemble easily**
- C. Easy maintenance**
- D. All above**

**6) Adhesive joining is permanent type joining techniques**

- A. True**
- B. false**

**7) Type of adhesive joint**

- A. Lap joint**
- B. Double joint**
- C. Scart-lap**
- D. All above**

**8) Advantages of adhesive joining**

- A. Fast and cheap joining techniques**
- B. The adherends are not affected by heat**
- C. Uniform stress distributions**
- D. All above**

**9) High frequency induction heaters are use in induction welding for joining.**

**True**

**false**

**10)State the need of joining**

- A. For assembly**
- B. To make large product**
- C. To increase strength of product**
- D. All above**

**11)Write limitations of hot gas welding?**

- A. Long welding cycle: up to 20 sec. for small parts and up to 30 min. for large parts \***
- B. High strength**
- C. Only for metal**
- D. All above**

**12)Hot plate welding also called as**

- A. Heated tool welding**
- B. Spark welding**
- C. Free welding**
- D. None of above**

**13)In induction welding there is a use of**

- A. Electromagnetic induction**
- B. Magnetic induction**
- C. Electric induction**
- D. All above**

**14)Following are the types of plastic joining techniques**

- A. Mechanical**
- B. Adhesive**
- C. Chemical**
- D. All above**

**15)Adhesive joining also called welding techniques.**

**A. True**

**B. False**

**16) State the need of surface treatment**

**A. Increase surface energy**

**B. Increase strength**

**C. Increase bonding**

**D. All above**

**17) What is rivet?**

**A. Permanent mechanical fasteners**

**B. Consists of smooth cylindrical shaft**

**C. With head on one end**

**D. All above**

**18) When two main plates are kept in alignment butting each other and riveted with cover plate on both sides of the main plates with two rows of rivets in each main plate, the joint is known as \_\_\_\_\_ double cover butt joint.**

**A. Single riveted**

**B. Double riveted**

**C. Both A and B**

**D. NONE OF THESE**

**19) A RIVET is specified by the diameter of its**

**A. Head**

**B. Tail**

**C. Shank**

**D. None of above**

**20) Which one is the permanent fasteners.**

**A. Screw fastening**

- B. Fastening with bolt and screw
- C. Brazing
- D. welding

**21)what are the types of plastic joining techniques?**

- A. Adhesive
- B. Mechanical
- C. Thermal
- D. All above

**22)Why mechanical joining are prepared?**

- A. High strength
- B. High wear and tear
- C. Corrosion
- D. None of above

**23)State the types of mechanical joining techniques.**

- A. Screws
- B. Nuts/rivet
- C. Bolts
- D. All above

**24)Following are the types of bolts**

- A. Tarck bolt
- B. Square bolt
- C. Round bolt
- D. All above

**25)Following are the types of screw**

- A. Wood screw**
- B. Socket screw**
- C. Eye lag**
- D. All above**

**26)The substances which are capable of uniting two other materials together by adhering strongly to the surface of both are called**

\_\_\_\_\_

- a) Organic conducting polymers**
- b) Biodegradable polymers**
- c) Adhesives-**
- d) Composites**

**27)Select the incorrect statement from the following option.**

- a) Two surfaces are rapidly, economically and easily joined to each other by adhesives**
- b) The process of applying adhesives requires highly specialized workers or high heat-**
- c) Adhesives bonding requires less after-finishing**
- d) Bonding by adhesives gives smoother finished surfaces**

**28)Adhesives joints are leak-proof for \_\_\_\_\_**

- a) Solids only**
- b) Liquids only**
- c) Gases only**
- d) Both liquids and gases-**

**29)Joining of labels to plastic cans or bottles is not possible without the use of adhesives.**

- a) True-**
- b) False**

**30)The strength of adhesive joint is \_\_\_\_\_ than mechanical joint obtained by welding or riveting.**

- a) More**

- b) Less-
- c) Equals to
- d) Very less

31) On increasing the temperature, the strength of adhesive \_\_\_\_\_

- a) Remain same
- b) Increases
- c) Decreases-
- d) First increases than decreases

32) Which of the following is used as curtain-wall sealants?

- a) Polyurethane
- b) Silicones-
- c) Polyvinyls
- d) Cellulose derivatives

33) The process of applying an adhesive is:

- a) Speedy-
- b) Slow
- c) Costly
- d) Cumbersome

34) Adhesive becomes strong immediately after its application.

- a) True
- b) False-

35) Laser beam welding is a \_\_\_\_\_ joining process.

- a) fission
- b) fusion-
- c) coherent
- d) plastic

36) In which welding the strength of the weld results due to diffusion and plastic deformation of the flying surface?

- a) Diffusion welding-
- b) Thermit welding



- c) Laser beam welding
- d) Ultrasonic welding

37) What is an example of plastic welding?

- A. Gas Welding
- B. Resistance welding-
- C. Thermit welding without pressure
- D. None of these

38) In ultrasonic welding, the frequency range is generally

- A. 100 – 4000 cps
- B. 4000-20000 cps
- C. 20,000-40,000 cps-
- D. 80,000-200,000 cps

39) Which of the following is true about resistance welding?

- a) Electrodes of higher resistivity is used for lower resistive piece-
- b) Electrodes of higher resistivity is used for higher resistive piece
- c) Electrodes of lower resistivity is used for lower resistive piece
- d) Electrodes of lower resistivity is used for higher resistive piece

40) WHICH of the following is weld joint?

- A. Butt and lap joint
- B. T joint
- C. Corner joint/edge joint
- D. All of the above-

41) Friction welding produces welds due to \_\_\_\_\_

- a) electrode melting
- b) workpiece melting
- c) relative motion between workpieces-
- d) adhesive force between workpiece particles

42) In friction welding, material is deformed due to \_\_\_\_\_

- a) elastic deformation
- b) plastic deformation-
- c) ductile deformation
- d) brittle deformation

- 43) Which of the following is true about friction welding?**
- a) One workpiece is held stationary while the other is moving-
  - b) Both the workpieces are moving
  - c) Both the workpieces are stationary and filler is added in the space between them
  - d) The material is deformed elastically
- 44) During friction welding, initially low pressure is applied. Why?**
- a) For slowly increasing the surface temperature
  - b) For melting the surface coating on the materials
  - c) To check weldability of two materials
  - d) For initial cleaning of the surface-
- 45) Pick up the incorrect statement about friction welding**
- A. Little preparation required for joints
  - B. Dissimilar metals can be welded
  - C. It is best suited for welding of plastics
  - D. Any type of configuration can be welded-
- 46) What is the maximum thickness that can be welded in ultrasonic welding?**
- a) 1.8 mm
  - b) 2.1 mm
  - c) 2.3 mm
  - d) 2.5 mm-
- 47) Electric currents are passed in ultrasonic welding.**
- a) True
  - b) False-
- 48) Which of the following joints have high corrosion resistance?**
- A. Welding joint-
  - B. Riveted joint
  - C. Bolted joint
  - D. None of the above
- 49) The voltage needed in resistance welding does not depend upon**
- A. Composition
  - B. Area

**C. Thickness of weld**

**D. Length of weld-**

**50) Which of the below adhesive is not attacked by water?**

- a) Starch glue**
- b) Albumin glue-**
- c) Vegetable glue**
- d) Rubber glue**

**51) Epoxy adhesives are used in the manufacturing of:**

- a) Glass**
- b) Fabric**
- c) Plywood-**
- d) Plastic**

**52) The substances which are capable of uniting two other materials together by adhering strongly to the surface of both are called**

- 
- a) Organic conducting polymers**
  - b) Biodegradable polymers**
  - c) Adhesives-**
  - d) Composites**

**53) Select the incorrect statement from the following option.**

- a) Two surfaces are rapidly, economically and easily joined to each other by adhesives**
- b) The process of applying adhesives requires highly specialized workers or high heat-**
- c) Adhesives bonding requires less after-finishing**
- d) Bonding by adhesives gives smoother finished surfaces**

**54) One of the advantages to adhesively bonded joint is a stiffening effect compared to riveted welded joint.**

- A. True-**
- B. False**

55)Plastics generally do not exhibit a very high surface free energy value (SFEV) when bonding (i.e., less than 50 mJ/m<sup>2</sup>) when compared to metals.

A. True -

B. False

56)Which type of joint generally transfers loads more efficiently?

A. A fastened joint

B. An Adhesive bonded joint

C. None of above

D. All above

57) Which of the following is the type of permanent joining process?

a) welding

b) soldering

c) both welding and soldering-

d) none of the mentioned

58)Which of the following is the type of temporary joining process?

a) brazing

b) mechanical joining-

c) both brazing and mechanical joining

d) none of the mentioned

59)This type of thread is a thread on the inside of a member:

A. *Basic thread*

B. *External thread*

C. *Internal thread-*

D. *Major diameter thread*

60) *This is the smallest diameter of a screw thread:*

A. *Internal thread diameter*

B. *Minor diameter-*

- C. *Major diameter*
- D. *External thread diameter*

61) *This is the bottom surface joining the sides of two adjacent threads*

- A. *Lead*
- B. *Pitch*
- C. *Crest*
- D. *Root-*

62) *These include taper pins, straight pins, dowel pins, clevis pins, and cotter pins:*

- A. *Bolts*
- B. *General fasteners*
- C. *Machine pins-*
- D. *Rivets*

63) *This type of fastener is designed to prevent movement between shafts and wheels.*

- A. *Keys-*
- B. *Machine pins*
- C. *Rivets*
- D. *All above*

64) *A device that is used to mechanically join two or more object together is called*

- E. *Mechanical joining*
- F. *Adhesive joining*
- G. *Coating*
- H. *All above*

**65) Type of threaded fasteners**

**E. Bolt**

**F. screw**

**G. studs**

**H. all above**

**66) Following are not advantages of adhesives bonding.**

**E. Good shock absorption**

**F. Provision of large, stress bearing area**

**G. Good strength to weight ratio**

**H. Significant cure time may be required**

**67) Factors influencing the mechanical joints**

**F. Types of loading**

**G. Stress concentration**

**H. Method of hole making**

**I. Drilling induced damage**

**J. All above**

**68) Write four advantages of mechanical joints**

**E. Very strong**

**F. Disassemble easily**

**G. Easy maintenance**

**H. All above**

**69)Adhesive joining is permanent type joining techniques**

**C. True**

**D. false**

**70)Type of adhesive joint**

**E. Lap joint**

**F. Double joint**

**G. Scart-lap**

**H. All above**

**71)Advantages of adhesive joining**

**E. Fast and chep joining techniques**

**F. The adherends are not affected by heat**

**G. Uniform stress distributions**

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**72)High frequency induction heaters are use in induction welding for joining.**

**True**

**false**

**73) State the need of joining**

- E. For assembly**
- F. To make large product**
- G. To increase strength of product**
- H. All above**

**74) Write limitations of hot gas welding?**

- E. Long welding cycle: up to 20 sec. for small parts and up to 30 min. for large parts \***
- F. High strength**
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- H. All above**

**75) Hot plate welding also called as**

- E. Heated tool welding**
- F. Spark welding**
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**76) In induction welding there is a use of**

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H. All above

77) Following are the types of plastic joining techniques

E. Mechanical

F. Adhesive

G. Chemical

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C. True

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79) State the need of surface treatment

E. Increase surface energy

F. Increase strength

G. Increase bonding

H. All above

80) What is rivet?

E. Permanent mechanical fasteners

F. Consists of smooth cylindrical shaft

G. With head on one end

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81) When two main plates are kept in alignment butting each other and riveted with cover plate on both sides of the main plates with two rows of rivets in each main plate, the joint is known as \_\_\_\_\_ double cover butt joint.

E. Single riveted

- F. Double riveted
- G. Both A and B
- H. NONE OF THESE

82) A RIVET is specified by the diameter of its

- E. Head
- F. Tail
- G. Shank
- H. None of above

83) Which one is the permanent fasteners.

- E. Screw fastening
- F. Fastening with bolt and screw
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- F. Mechanical
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99) Which of the below adhesives is not attacked by water?

a) Starch glue

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- 100) Epoxy adhesives are used in the manufacturing of:
- a) Glass
  - b) Fabric
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- 101) The substances which are capable of uniting two other materials together by adhering strongly to the surface of both are called \_\_\_\_\_
- a) Organic conducting polymers
  - b) Biodegradable polymers
  - c) Adhesives-
  - d) Composites
- 102) Select the incorrect statement from the following option.
- a) Two surfaces are rapidly, economically and easily joined to each other by adhesives
  - b) The process of applying adhesives requires highly specialized workers or high heat-
  - c) Adhesives bonding requires less after-finishing
  - d) Bonding by adhesives gives smoother finished surfaces
- 103) one of the advantages to adhesively bonded joint is a stiffening effect compared to riveted welded joint.
- A.True-
  - B.False
- 104) Plastics generally do not exhibit a very high surface free energy value (SFEV) when bonding (i.e., less than 50 mJ/m<sup>2</sup>) when compared to metals.
- A. True -
  - B. False
- 105) Advantages of adhesive joining
- A. Fast and cheap joining techniques

**B. The adherends are not affected by heat**

**C. Uniform stress distributions**

**D. All above**

**106) High frequency induction heaters are use in induction welding for joining.**

**a) True**

**b) false**

**107) State the need of joining**

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**B. To make large product**

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**A. Mechanical**

**B. Adhesive**

**C. Chemical**

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**112) Adhesive joining also called welding techniques.**

**A. True**

**B. False**

**113) State the need of surface treatment**

**A. Increase surface energy**

**B. Increase strength**

**C. Increase bonding**

**D. All above**

**114) What is rivet?**

**A. Permanent mechanical fasteners**

- B. Consists of smooth cylindrical shaft**
  - C. With head on one end**
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- 115) When two main plates are kept in alignment butting each other and riveted with cover plate on both sides of the main plates with two rows of rivets in each main plate, the joint is known as \_\_\_\_\_ double cover butt joint.**
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  - C. Both A and B**
  - D. NONE OF THESE**
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  - B. Tail**
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- 117) Which one is the permanent fasteners.**
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  - C. Brazing**
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- 118) what are the types of plastic joining techniques?**
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  - C. Thermal**
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- 119) In which welding the strength of the weld results due to diffusion and plastic deformation of the flying surface?**
- a) Diffusion welding-**



- b) Thermit welding
- c) Laser beam welding
- d) Ultrasonic welding

120) What is an example of plastic welding?

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- B. Resistance welding-
- C. Thermit welding without pressure
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121) In ultrasonic welding, the frequency range is generally

- A. 100 – 4000 cps
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122) Which of the following is true about resistance welding?

- a) Electrodes of higher resistivity is used for lower resistive piece-
- b) Electrodes of higher resistivity is used for higher resistive piece
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123) WHICH of the following is weld joint?

- A. Butt and lap joint
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124) Friction welding produces welds due to \_\_\_\_\_

- a) electrode melting
- b) workpiece melting
- c) relative motion between workpieces-
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125) State the types of mechanical joining techniques.

- E. Screws
- F. Nuts/rivet

**G. Bolts**

**H. All above**

**126) Following are the types of bolts**

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**128) The substances which are capable of uniting two other materials together by adhering strongly to the surface of both are called**

\_\_\_\_\_

**a) Organic conducting polymers**

**b) Biodegradable polymers**

**c) Adhesives-**

**d) Composites**

**129) Select the incorrect statement from the following option.**

**a) Two surfaces are rapidly, economically and easily joined to each other by adhesives**

**b) The process of applying adhesives requires highly specialized workers or high heat-**

**c) Adhesives bonding requires less after-finishing**

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- 130) Adhesives joints are leak-proof for \_\_\_\_\_
- a) Solids only
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- 131) Joining of labels to plastic cans or bottles is not possible without the use of adhesives.
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- 132) The strength of adhesive joint is \_\_\_\_\_ than mechanical joint obtained by welding or riveting.
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- 133) On increasing the temperature, the strength of adhesive \_\_\_\_\_
- a) Remain same
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  - c) Decreases-
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- 134) Which of the following is used as curtain-wall sealants?
- a) Polyurethane
  - b) Silicones-
  - c) Polyvinyls
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  - b) False-

