

Skill Development and Entrepreneurship Department
Directorate of Vocational Education and Training
Directorate of Skill Development, Employment and Entrepreneurship
Question Paper Group Name: Mechanical-9
Question Paper Post Names: Craft Instructor – Plastic Processing Operator

Duration: 60 Minutes

Total Question: 40

INSTRUCTIONS

1. This Question Paper Booklet contents 40 mandatory questions. Candidate should check the Question Paper Booklet and ensure that it contents all pages and questions before starting to answer. If candidate finds any problem pertaining to printing/ binding/ incomplete pages etc, candidate should immediately get the Question Paper replaced from the Invigilator.
2. Candidate has to write his/ her seat number in this block.

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3. The Question Booklet Number as printed above should be mentioned at the appropriate place on the OMR Answer Sheet.
4. All the Questions are provided with 4 options as 1, 2, 3 and 4. Candidate should select the most correct Option and mention the Option Number on the OMR Answer Sheet in front of the respective Question Number by **fully shading the Option Number with BLACK INK BALL POINT PEN Only.**
5. All Questions carry equal marks i.e. 1 Question has a weightage of 1 marks. Candidate should mind the available time for the examination and solve the questions accordingly.
6. The option shaded once on the OMR Answer Sheet should not be roughed or in any other way changed. Thus candidate should take utmost care while marking their options on OMR Answer Sheet. Such changes if any or any attempt to rough/ change options shall not be checked by the authorities.
7. Marks shall be awarded to the correct answers only during the evaluation of the OMR Answer Sheet. No marks shall be deducted for registering wrong answers (shading wrong option) or not attempting questions. Thus there is **NO NEGATIVE MARKING SYSTEM.**
8. All the rough work has to be done on the sheet provided for Rough Work in the Question Booklet only. Writing anything on the Question Paper Booklet, OMR Answer Sheet or any other Paper Sheet shall be treated as an unfair means and entitle for action under "**Prohibition of Unfair Practices during examination Ordinance – 1982**".
9. Method of Shading the Correct Option on the OMR Answer Sheet:

Q.No. 25. How many Centimeters make 1 Meter?

- | | |
|----------|-----------|
| (1) 10 | (2) 100 |
| (3) 1000 | (4) 10000 |

The Correct Option for this Question is (1) and hence the (2) option on the OMR Answer Sheet in front of Question Number 25 has to be shaded as following

**USE ONLY BLACK INK BALL POINT PEN FOR SHADING****IMPORTANT**

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THIS QUESTION PAPER BOOKLET AND PART – 1 OF OMR ANSWER SHEET HAVE TO BE SUBMITTED TO THE INVIGILATOR AFTER THE EXAMINATION.

1. "Class – A" type of fire is

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|--------------------------------|---|
| 1. Fires in flammable liquids | 2. Fires in ordinary combustibles materials |
| 3. Fires in combustible metals | 4. Fires on electrical equipment |

2. The angle of 'V' in V-Block is generally

- | | |
|--------|---------|
| 1. 45° | 2. 60° |
| 3. 90° | 4. 120° |

3. "Draw filing" method

1. Does not remove much material but only gives fine finishing
2. is used to remove maximum material
3. is used on long and narrow piece of work
4. Striker the job from left to right and right to left

4. If D = Tap drill diameter, T = Diameter of tap and d = depth of the thread, then

- | | |
|-----------------|-----------------|
| 1. $T = D - 2d$ | 2. $D = T/D$ |
| 3. $D = T + 2d$ | 4. $D = T - 2d$ |

5. If the pitch of a micrometer thread is 0.5 mm and the circumference of the thimble is divided into 50 equal parts then one graduation on thimble corresponds to

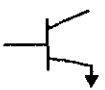
- | | |
|-----------------------|-----------------------|
| 1. $\frac{1}{10} mm$ | 2. $\frac{1}{100} mm$ |
| 3. $\frac{1}{500} mm$ | 4. $\frac{1}{50} mm$ |

6. Sensitive or Bench drill is preferred to drill hole up to..... mm diameter.

- | | |
|-------|-------|
| 1. 20 | 2. 75 |
| 3. 10 | 4. 50 |

7. The voltage between two lines of the three phase supply is

- | | |
|----------|----------|
| 1. 220 V | 2. 120 V |
| 3. 440 V | 4. 110 V |

8.  This symbol is for

1. N-P-N transistor
2. P-N-P transistor
3. F.E.T
4. U.J.T.

9. Nylon and polyester resins are

1. Both thermoplastics
2. Both thermosetting plastics
3. Thermosetting plastic and thermoplastic respectively.
4. Thermoplastic and thermosetting plastic respectively

10. The additives used in plastics are -----

1. Solids
2. Liquids
3. Gases
4. All of the above

11. A plastic sample is held to the edge of flame and heated. It is observed that the sample does not ignite; it slowly deforms and gives odor of HCL. The plastic material is

1. Urea resin
2. Acrylate resin
3. HDPE
4. PVC

12. Which of the following products can be manufactured by compression moulding

1. Ash tray
2. Mug
3. Electrical Switch
4. Pipe

13. A compression moulding method requires a mould which is heated between.....

1. 125°C to 160°C
2. 60°C to 100°C
3. 200°C to 300°C
4. 500°C to 1000°C

14. A pressure applied in compression moulding is approximately in the range of

1. 50 to 100 kg/cm²
2. 200 to 600 50 to 100 kg/cm²
3. 10 to 30 kg/cm²
4. 100 to 150 kg/cm²

15. Pre heating of moulding material is done in compression moulding process

- 1. To reduce curing time
- 2. To reduce cycle time
- 3. To increase strength
- 4. For all of above

16. Find the press capacity in tones if the hydraulic line pressure in 80 kg/cm² and ram are is 23 cm²

- 1. 18.4 tonnes
- 2. 3.47 tonnes
- 3. 34.7 tonnes
- 4. 1.84 tonnes

17. The injection capacity of injection moulding machine is measured in

- 1. Kg/mm
- 2. g/shot
- 3. mm³
- 4. Cm³

18. A flash type compression mould is used to produce

- 1. Long parts
- 2. Deep parts
- 3. Shallow shaped parts
- 4. Wide parts

19. Which of the following material is generally used in compression moulding

- 1. LDPE
- 2. HDPE
- 3. Polypropylene
- 4. PF

20. A "Short shot" defect is found in the part manufactured by injection moulding the cause may be

- 1. Excessive feed
- 2. High injection pressure
- 3. High melt temperature
- 4. Less feed

21. A "cracking after moulding" defect is found on a part manufactured by compression moulding the cause may be

- 1. Rapid mould closing
- 2. Low mould temperature
- 3. Less cure time
- 4. Less wall thickness

22. A pipe is manufactured by extrusion and it is found that the pipe has uneven thickness. The reason for this defect maybe

1. Low temperature
2. Moisture in the material
3. Die is not centered properly
4. Overheating

23. A " Bend parison" defect is found in a part manufactured by blow moulding. The corrective action will be

1. Die should be centered properly
2. Clean die & die head
3. Increase melt temperature
4. Polish mandrel

24. The oil in the lubricating unit of FRL should be changed

1. Every week
2. Every month
3. Every 6 months
4. Every year

25. The symbol  is used to represent

1. Filter
2. Non-return valve
3. Restriction
4. Check valve

26. The grease in the ball bearings of electric motors should be replaced

1. Weekly
2. Monthly
3. Daily
4. Yearly

27. Continuous film is produced by

1. Extrusion moulding
2. Blow moulding
3. Injection moulding
4. Compression moulding

28. Plastic bottles are manufactured by using

1. Compression moulding
2. Blow moulding
3. Extrusion moulding
4. Injection moulding

29. A defect "Excess shrinkage" in the blow moulded part may be the result of

1. Poor melt flow
2. Poor cooling, melt temperature too high
3. Poor venting
4. Contaminated material

30. The output of extrudes depends on

1. Screw decimeter
2. Screw speed
3. Die orifice diameter
4. All the above factors

31. In extrusion moulding machine, the ratio of volume of the first turn of the channel of the screw to the last turn of the channel is known as

1. Compression ratio
2. Compact ratio
3. Output ratio
3. Volume ratio

32. Preventive maintenance of an injection moulding machine means

1. Servicing the machine on regular basis
2. Attending the machine after breakdown
3. Repairing the machine if accident happens
4. Repairing the machine after rejection rate increases

33. Function of a relief valve in hydraulic system is to

1. Control the maximum line pressure
2. To change the direction of fluid
3. To control the fluid flow volume
4. To control speed of fluid flow

34. In FRP the reinforcement fiber used is

1. Glass fiber
2. Carbon fiber
3. boron filament
4. All of the above

35. A continuous process by which thermoplastic material is forced though the die or an orifice to produce a constant cross section is called as

1. Hot rolling
2. Cold rolling
3. Extrusion
4. None of the above

36. The dimensional difference in inch per inch between the mould cavity and the finished part produced from that cavity is called as

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|-----------------------|------------------------------|
| 1. Moulding war page | 2. Moulding thickness |
| 3. Moulding shrinkage | 4. Moulding cavity allowance |

37. Small components manufactured by compression moulding are deflashed by

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|----------------------|--------------------------|
| 1. Disc type machine | 2. Sand blasting |
| 3. Buffing | 4. Conventional tumbling |

38. The process of compression of the moulding powder in the tablet of proper size and weight is known as

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|--------------------|----------------|
| 1. Pre-compression | 2. Pre-heating |
| 3. Pre-finishing | 4. Pre-forming |

39. The unit of temperature in S.I.system is

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|----------------------|----------------------|
| 1. Degree centigrade | 2. Degree Fahrenheit |
| 3. Degree Kelvin | 4. None of above |

40. Products from PVC are usually made by

- | | |
|-----------------------|-----------------------------|
| 1. Injection moulding | 2. Blow moulding |
| 3. Extrusion moulding | 4. All of the above methods |