

THE TEXTILE ASSOCIATION (INDIA)

G.M.T.A. EXAMINATION-2020

SECTION B PAPER-B1

YARN MANUFACTURE

Date: 24.12.2020

Marks: 100

Time: 2 p.m to 5 pm

Instructions:

1. Attempt **SIX** questions out of which **Q1** is Compulsory
2. Answer each next question on new page.
3. Figures to the right indicate full marks.
4. Illustrate your answers with sketches and flow chart wherever necessary.
5. Use of nonprogrammable electronic pocket calculator permissible.
6. Mobile and any other communication devices are not allowed in the exam hall.
7. Assume suitable data wherever necessary.

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| Q.1. A. | Explain the following terms | 10 |
| 1. | Fibre length and Fibre fineness | |
| 2. | Tension draft and Total draft with formulae | |
| 3. | Noil percentage and Neps | |
| 4. | Ring and Travellers | |
| 5. | Direct and Indirect system | |
| Q.1. B. | Answer the following questions | 10 |
| 1. | What is Ginning? Explain saw roller gin with neat labelled diagram | |
| 2. | What are the objectives of blow room? Explain the modern development in blow room. | |
| Q2 a. | What the blending and its objectives? Explain different types of blending in any common blends. | 08 |
| b. | Discuss in details about the fibre parameters influences the spinning performance? | 08 |
| Q3 a. | State the objective of carding. Explain the working principle with neat labelled diagram of card | 08 |
| b. | Discuss the different types of clothing with reference with licker-in, cylinder and doffer mechanism. | 08 |
| Q4 a. | Discuss the objective of drawframe? Explain the working mechanism of 4/4 draw frame with neat labelled diagram | 08 |
| b. | Describe the long and short creel of drawframe and their merits and demerits. | 08 |
| Q5 a. | Discuss the detaching settings and its importance in comber. | 08 |
| b. | Explain the working principle with neat labelled diagram of ring frame spinning and its objectives. | 08 |
| Q6 a. | Describe the faulty packages of ring frame and remedial measures. | 08 |
| b. | Explain the mechanism of cone winding with neat labelled diagram. | 08 |
| Q7 a. | Explain different types of electronic yarn clearers | 08 |
| | Discuss the principle of twisting and winding at speed frame with neat sketch. | 08 |
| Q8 a. | Explain the conditions to get balanced double yarn. What are their objectives? | 08 |
| | What are the types of doubling systems? Discuss defects in doubling and their | |

remedies.

- b. Compare between the Open-End spinning versus ring spinning. Give its merits and demerits of Open-End spinning versus ring spinning

08

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