

Seat No./Enrollment No.: _____

GUJARAT TECHNOLOGICAL UNIVERSITY
BACHELOR OF ENGINEERING – SEMESTER 4 – EXAMINATION – SUMMER 2026

Subject Code: 3142906

Date: 25/05/2026

Subject Name: Fabric Formation II

Time: 10:30 AM TO 01:00 PM

Total Marks: 70

Instructions:

- 1. Attempt all questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**
- 4. Simple and non-programmable scientific calculators are allowed.**

- Q.1** (a) State primary and secondary motion of plain power loom. **03**
(b) Give timing diagram of shuttle loom. **04**
(c) Explain working principle of negative tappet shedding mechanism. **07**
- Q.2** (a) Compare cone over pick and under pick mechanism. **03**
(b) Compare the loose reed and fast reed warp protection motions? **04**
(c) Explain passage of warp yarn through plain power loom with diagram. **07**
- OR
- Q.2** (c) Explain construction and working of two-prong electrical feeler. **07**
- Q.3** (a) State the objects of let off motion. **03**
(b) Explain four link beat up mechanism with suitable diagram. **04**
(c) Explain negative let off mechanism with diagram. **07**
- OR
- Q.3** (a) Give classification weft feelers. **03**
(b) What is the purpose of attaching multiple box motion on a powerloom? **04**
(c) Explain construction and working of cop change mechanism. **07**
- Q.4** (a) What is the necessity of warp protector motions in power loom? **03**
(b) Explain term: pick & pick and pick-at-will motion. **04**
(c) Explain working principle of Eccle's drop box motion with diagram. **07**
- OR
- Q.4** (a) Give classification of dobby. **03**
(b) Compare side weft fork motion with centre weft fork motion. **04**
(c) Explain construction and working of climax dobby. **07**
- Q.5** (a) Give classification of jacquards. **03**
(b) Explain any two jacquard tie-ups with diagram. **04**
(c) Explain working principle of double lift double cylinder jacquard with diagram. **07**
- OR
- Q.5** (a) Mention the advantages of shuttleless loom over shuttle loom. **03**

(b) Explain application of weft accumulators on shuttleless looms.

04

(c) Write short note on type of selvages.

07
