2026

Suggestive Question Paper for

ELECTRONICS MECHANICS

(Power Supply System / Concept of Electronic Appliances)

Practical Paper : I

Full Marks : 40

Pass Marks : 16

Time : 3 hours

Candidates shall note that each question will be bilingual, viz., in English/Assamese medium, for their ready reference. In case of any discrepancy or confusion in the medium/version, the English version will be considered as the authentic version.

The figures in the margin indicate full marks for the questions.

Note : The question paper for 2026 Exam has to be prepared on this basis without repeating from the suggestive questions as far as practicable.

PART–C

(Practical Work)

Complete *any one* practical work from Q. No. **1** to Q. No. **6**.

1. *(a)* Assemble the various parts such as step-down transformer, rectifier circuit, D.C. filter circuit and voltage regulator of a Regulated Power Supply.   9

    (b) Draw a circuit diagram of the regulated power supply assembled in *(a)* above.   6

2. *(a)* Open top cover of UPS and identify isolator transformer, UPS transformer and additional circuit other than inverter.   8

    (b) Identify various circuit Boards in UPS and monitor various test points.   7

3. Draw Connection Diagram of two $12V$ solar panels and batteries that are connected in series for $24V$ D.C. inverter system.   15

4. *(a)* Connect and test Dish Antenna to a set top box and run the load.   7

    (b) Test right direction of Dish Antenna with satellite through LNBC by using Direction Finder.   8

5. Dismantle the various parts of a remote control given to you. Study the various parts. Now reassemble all the parts carefully. Test the remote control now if it is working properly or not.   15

6. Draw the connection Diagram between C.C.T.V. camera with C.C.T.V. receiver. Show the various components in it.   15

7. Written test.   5
    N.B. The external Examiner will have to set questions for this test as per the respective practical work done by each individual candidate.

8. Viva voce   5

PART–D
(Project Work/Field Visit)

9. Practical File/Student Portfolio   10

10. Viva voce   5

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CODE : 33VT EMEC (Pr–II)

(EN)

2026

Suggestive Question Paper for

ELECTRONICS MECHANICS

(Colour / LCD / LED Television Receiver Principle)

Practical Paper : II

Full Marks : 40

Pass Marks : 16

Time : 3 hours

Candidates shall note that each question will be bilingual, viz., in English/Assamese medium, for their ready reference. In case of any discrepancy or confusion in the medium/version, the English version will be considered as the authentic version.

The figures in the margin indicate full marks for the questions.

Note : The question paper for 2026 Exam has to be prepared on this basis without repeating from the suggestive questions as far as practicable.

PART–C

(Practical Work)

Complete *any one* practical work from Q. No. **1** to Q. No. **5**.

1. *(a)* Test the F.M Radio Receiver to detect the faults occurring in it. 9
   (b) Rectify the fault/faults detected in *(a)* above. 6
2. *(a)* The Colour television given to you is not working at all. Test the individual component of power supply section to detect the fault. 9
   (b) Rectify the fault/faults detected in *(a)* above. 6
3. *(a)* Identify the various components of LCD display module. 8
   (b) Measure current flowing through a resistor and display it. 7
4. *(a)* Dismantle the LED light given to you. Identify the connection of LEDs stack. 9
   (b) Measure the voltage across LED stacks. 6
5. *(a)* Identify various connectors provided on a LED TV and test the healthiness. 8
   (b) Identify the various components of Backlight and Screen section of LED TV. 7
6. Written Test. 5
   Examiner will have to set questions for this test as per the respective practical work done by each individual candidate.

7. Viva voce 5

PART–D

(Project Work/Field Visit)

8. Practical File/Student Portfolio 10

9. Viva voce 5

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