

Government Institute of Printing Technology, Mumbai

Even term end theory examination April / May 2026

Course: English

Code: M101

Duration: 03.00 Hours

Marks:80

Instructions to Candidates:

1. Attempt all questions and illustrate your answer with neat sketches wherever necessary.
2. Figures to the right indicate full marks.
3. Assume suitable data if necessary

Q1.A Do as directed (Any ten)

10

- a. He said that he was innocent. (Make it simple).
- b. He is more a philosopher than a poet. (Make it compound).
- c. In the present case, there is no alternative (Make it Affirmative).
- d. That is a very beautiful flower. (Make it exclamatory).
- e. My sister makes breakfast for the family. (Make it Interrogative)
- f. They will not move until I order them (Add question tag)
- g. I did not looks as yellow as I felt. (Change the degree).
- h. The teacher said to me "I have never seen such a lazy boy as you" (Change into indirect speech).
- i. We have to knock down the building (Change the voice).
- j. He is so dull that he can't understand this problem. (Remove so-that)
- k. If the temperance does not increase the reaction will not occur (Use, Unless).
- l. She writes reports, she prepares presentations. (Use not only - but also)

Q1.B Fill in the blank, with suitable articles (Any four)

04

- a. _____ cat loves comfort.
- b. She is _____ European.
- c. He returned after _____ hour.
- d. Honesty is _____ best policy.
- e. He knows _____ way to be happy.

Q2. A separate the clauses and name them (Any 4)

04

- a. When the bell rang, the students left the classroom.
- b. I know that he is honest.
- c. The boy who is playing outside is my brother.
- d. If you work hard, you will succeed.
- e. She said that she would come early.
- f. Although he was tired, he continued working.

Q2. B Add suffix and Prefix in the following words (Any Six)

06

- a. Hesitate_____
- b. Divide_____
- c. Music_____
- d. God_____
- e. Arrive_____
- f. Imagine_____
- g. _____fair
- h. _____play
- i. _____paid
- j. _____place
- k. _____stop
- l. _____complete

Q2.C Fill in the blanks with the appropriate form of verbs given in the bracket. (Any Four) 04

- a. India (win) the trophy twice so far.
- b. He told me his name after he (leave)
- c. The news (be) good.
- d. If I (be) rich, I would be more respected.
- e. I (help) you if I can.

Q3. A. Use the following phrases in your own sentences (Any six). 06

- a. Fall out
- b. For good
- c. To hold good
- d. Look blank
- e. To run down
- f. Show off
- g. Sell out
- h. Give up
- i. Grow up
- j. Take over
- k. Try out

B. Insert the given adverbs (Any four). 04

- a. They played the match (well).
- b. We will visit the museum (soon).
- c. They are waiting for you. (outside).
- d. We go for a walk. (after).
- e. She has seen that movie (never).

C. Write a short paragraph on - "Environment" 04

Q4A. Correct the following sentence. (Any four) 04

- a. She do not like coffee.
- b. I am knowing the answer.
- c. We was playing in the ground.
- d. He have a new bicycle.
- e. The sun rise in the east.

Q4B. a) Write a letter to cancel or modify an order due to delay in delivery. 08

Or

- b) Write a letter to your friend asking him to spend a holiday with you.**

Q5A. Read the passage carefully and answer the question given below 10

Time is one of the most valuable resources in our life. Once lost, it can never be regained. People who understand the importance of time always succeed in life. They plan their works properly and avoid wasting time on unnecessary activities. On the other hand, those who do not value time often face failure. Time management helps us to complete our tasks efficiently and reduces stress. Therefore every one should learn to use time wisely.

Questions:-

- a. Why is time considered valuable?
- b. What do successful people do with their time?
- c. What happens to people who do not value time?
- d. Can lost time be regained?
- e. How does time management help us?

Q5B Attempt a summary of the above passage and suggest a suitable title. 04

Q6 A Write a short conversation between two friends about “the importance of regular studies”. 06

Q6B combine sentence using noun, Adverb and Adjective clauses (Any six) 06

- a. He said something. It was true.
 - b. I know something. He is honest.
 - c. I have a book. It is very interesting.
 - d. She was late. She missed the bus.
 - e. I will wait. You return.
 - f. He worked hard. He passed the exam.
 - g. This is the place. I was born here.
 - h. She met a girl. The girl was very kind.
 - i. I know the boy. He is playing outside.
 - j. You hurry. You will catch the train.
-

Government Institute of Printing Technology, Mumbai

Even term end theory examination April/May 2026 Reg. No. _____

Course: Communication Skills

Code: M102

Duration: 03.00 Hours

Marks:80

Instructions to Candidates:

1. Attempt all questions and illustrate your answer with neat sketches wherever necessary.
2. Figures to the right indicate full marks.
3. Assume suitable data if necessary

Q1. Answer the following questions. (Any 5)

20

- a. What is communication? Explain it with suitable example.
- b. Describe vertical communication with two examples.
- c. Communication is a two way process, explain.
- d. Explain day dreaming and closed mind as psychological barriers to communication.
- e. What are mechanical barriers to communication?
- f. How do your prejudices, opinions and beliefs influence communication?
- g. What is the importance of listening skills in business?

Q2 Write an essay in about 250 words. (Any 1)

12

- a. Importance of education.
- b. Women Empowerment.
- c. Life in 2050.

Q3 Answer the following questions. (Any 2)

12

- a. Draft a report on a Workshop conducted on skill development.
- b. As a shift incharge, draft an accident report to the HR manager about the accident that took place in the production section due to man handling of machines. Suggest preventive measures to avoid such accidents in future.
- c. Draft a notice inviting students to participate in a sport competition.

Q4 Answer the following questions.

06

- a. Draft an application to the HR manager of a company requesting for the post of Junior Engineer
- b. Write an application to the municipal corporation about garbage problems in your area.

B . Explain the types of communication in brief.

06

Q5 Read the following extract carefully and answer the question

08

In today's fast paced world technology has become an essentials part of our daily lives. From smartphone to computers, it has made communication faster and easier. Students can now access a vast amount of information online, which helps them in their studies and research online. Education platforms have made learning more flexible and accessible to people from all backgrounds.

However excessive use of technology also has its drawbacks. Many students spend too much time on social media which affects their concentration and academic performance. It can also lead to health problems such as eye strain and lack of physical activity.

Question-

1. How has technology changed communication?
2. How does technology help students in their studies?
3. What are the disadvantages of excessive use of technology?
4. What health problem are mentioned in the passage?

B Write Summary of the above extract and suggest a suitable title.

04

Q6 A. Draft speech any one of the following topic

08

1. Prepare a speech on the importance of reading habits
2. You are invited to speak on World Environmental Day. Write your speech.

B. Write a short note on

04

1. Examination system
2. Quality control.

Government Institute of Printing Technology, Mumbai

Even term end theory examination April / May 2026

Course: Basic Science

Code: M103

Duration: 03.00 Hours

Marks:80

Instructions to Candidates:

1. Attempt all questions and illustrate your answer with neat sketches wherever necessary.
2. Figures to the right indicate full marks.
3. Assume suitable data if necessary

- Q1. Answer the following questions. (Any 5)** **20**
- a. State any four characteristics of LASER.
 - b. Explain reflection of light with suitable diagram.
 - c. Define and explain angle of contact with suitable diagram.
 - d. Differentiate between weak acid and strong acid.
 - e. Define I) Lewis acid II) Lewis base
 - f. State and explain Faraday's 1st law of electrolysis with suitable example.
 - g. Differentiate between weak electrolyte and strong electrolyte.
- Q2 Answer the following questions. (Any 2)** **12**
- a. Define error. State four types of error.
 - b. Define energy. State laws of conservation of energy.
 - c. State applications of LASER (any six).
- Q3 Answer the following questions. (Any 2)** **12**
- a. Define unit. State any four requirement of standard unit.
 - b. Define and write SI units of following physical quantities: I) force II) work.
 - c. Define and explain 'capillary action' with suitable examples and diagram.
- Q4 Answer the following questions. (Any 2)** **12**
- a. Differentiate between fundamental quantities and derived quantities.
 - b. State and explain Newton's second law of motion with derivation $F = ma$.
 - c. Define viscosity. State and explain Newton's law of viscosity.
- Q5 Answer the following questions. (Any 2)** **12**
- a. Define I) speed II) velocity III) motion.
 - b. Define and explain $p^H - p^{OH}$ with suitable diagram.
 - c. Explain electrolysis of aqueous $CUSO_4$ solution by using Cu electrode with schematic representation.
- Q6 Answer the following questions. (Any 3)** **12**
- a. State and explain polarization of light with suitable diagram.
 - b. Define I) cohesive force II) adhesive force.
 - c. Differentiate between weak base and strong base.
 - d. State limitations of Arrhenius concept of acid.
 - e. Explain the process of silver electroplating on an iron spoon with suitable diagram and schematic representation.
-

Government Institute of Printing Technology, Mumbai

Even term end theory examination April / May 2026

Course: Basic Engineering

Code: M104

Duration: 03.00 Hours

Marks:80

Instructions to Candidates:

1. Attempt all questions and illustrate your answer with neat sketches wherever necessary.
2. Figures to the right indicate full marks.
3. Assume suitable data if necessary

Q1. Answer the following questions. (Any 5)

20

- a. Define mechanical advantages.
- b. Write 2 advantages and 2 applications of hydraulic power.
- c. Draw schematic diagram of double - acting compressor.
- d. Differentiate hydraulic power from pneumatic power using 4 parameter.
- e. State ohm's law and show direction of current in an electrical circuit.
- f. Compare conductors with insulator of electricity.
- g. Write symbol for current, voltage & resistance.

Q2 Answer the following questions. (Any 2)

12

- a. Draw schematic diagram of disc or plate cam write its function.
- b. State laws of static and kinetic friction.
- c. State Pascal's & elaborate. Also state charl's law.

Q3 Answer the following questions. (Any 2)

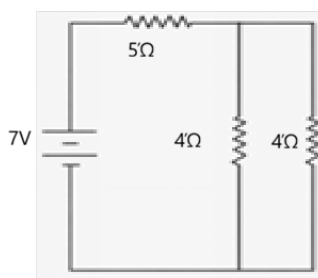
12

- a. Write with diagram, 3 features of spur and bevel gears.
- b. A 10kg pile of sheets is placed on wooden floor. the coefficient of static friction of the contact is 0.4. find the force to be applied horizontally when pile start moving.
- c. Write working principle and describe construction of rotary compressor.

Q4 Answer the following questions. (Any 2)

12

- a. Elaborate belt drive , write its function , 2 advantages & 2 limitations.
- b. Classify types of lubricants and state their 4 functions.
- c. Find the current flowing through each resistors shown in below circuit



Q5 Answer the following questions. (Any 2)

12

- a. Differentiate group drive from individual drive using 6 basics.
- b. State formula to calculate voltage and current in star and delta connections.
- c. Find the total current flowing through circuit if three resistors $R_1=3\Omega$ $R_2=2\Omega$ and $R_3=4\Omega$ are connected in series Dc voltage is 18V

Q6 Answer the following questions. (Any 2)

12

- a. Define prime mover mechanical drive and power transmission.
 - b. Describe the process of electrical circuit analysis.
 - c. State Boyle's law and describe its 4 applications.
-

Government Institute of Printing Technology, Mumbai

Even term end theory examination April/ May 2026

Course: Printer's Mathematics

Code: M106

Duration: 03.00 Hours

Marks:80

Instructions to Candidates:

1. Attempt all questions and illustrate your answer with neat sketches wherever necessary.
2. Figures to the right indicate full marks. Use of non-programmable calculator is permitted.
3. Assume suitable data if necessary.

Q1. Answer the following questions. (Any 5)

20

- a. Differentiate up to 4 points : Ratio and Proportion.
- b. Define direct and indirect proportion along with two examples of each.
- c. If 8 men and 6 women complete the work in 5 days then in how many days will 6 men and 10 women complete the same work?
- d. State formula to calculate volume of cone, sphere, pyramid and cube.
- e. Ram purchased a second hand printing machine for Rs.96,000. Estimated life of the machine is 4 years and its residual value is Rs.36,000. Calculate the amount of annual depreciation.
- f. Write 2 characteristics of bar graph and pie chart.
- g. Calculate mean, median and mode from the following data
3, 13, 11, 15, 5, 4, 2, 3, 2

Q2 Answer the following questions. (Any 2)

12

- a. Calculate total surface area and volume of a sphere with I) 21cm diameter II) 14cm diameter.
- b. A shopkeeper sells a refrigerator at cost price of Rs.15,000 with a profit of 20%. Find the price at which customer has purchased it. Also find profit amount earned by the shopkeeper.
- c. The data shows the population of a country from 1980-2005. draw a line graph and find the highest increase in percentage between any two consecutive 5 years slab.

Year	Population (Millions)
1980	46
1985	47
1990	48
1995	49
2000	51
2005	53

Q3 Answer the following questions. (Any 2)

12

- a. An aeroplane covers a certain distance at a speed of 240 kmph in 5 hours. To cover the same distance in 4 hours, what speed it must travel at?
- b. If the compound interest on certain principal at 16% interest rate for 3 years is Rs.1300, what is the simple interest on the same principal and for the same period.
- c. Describe Trapezoid rule and Simpson's one third rule to calculate area of irregular figure.

Q4 Answer the following questions. (Any 2)

12

- a. A principal becomes Rs.10,648 at compound interest in 3 years and Rs.9680 in 2 years. What is the rate off interest per annum?
- b. A person uses his time (in hours) on different daily activities. Draw a pie chart for this information.

Activity	Office work	Gym	Travel	Reading	Study	Sleep
No of hrs	9	1	2	3	7	2

C. Calculate the median marksof students from the following distribution

Marks	10-20	20-30	30-40	40-50	50-60	60-70	70-80
No of students	7	10	10	20	20	15	8

Q5 Answer the following questions. (Any 2)

12

- a. 'A' and 'B' can complete a piece of work in 15 days and 10 days respectively. They got a contract to complete the work for 75,000. Find the share of 'A' and 'B' in the contract money.
- b. If the height of a cone is 8 cm and the diameter of the circular base is 12 cm. Find the volume and total surface area of cone.
- c. Define mean, mode and median along with one application for each.

Q6 Answer the following questions. (Any 2)

12

- a. A sum of Rs 10,000 is borrowed by Akshit for 2 years at an interest of 10% compound annually. Find the compound interest and amount he has to pay at the end of 2 years.
- b. A printing press has brought a car that values Rs 5,00,000 and its useful life is ten years. The residual value is expected to be Rs 24,000. the depreciation rate is 40%. Calculate the depreciation of first 2 years.
- c. Difference up to 6 points - Simple and compound interest.

Government Institute of Printing Technology, Mumbai

Even term end theory examination April / May 2026

Course: Basic Prepress

Code: M202

Duration: 03.00 Hours

Marks:80

Instructions to Candidates:

1. Attempt all questions and illustrate your answer with neat sketches wherever necessary.
2. Figures to the right indicate full marks.
3. Assume suitable data if necessary

- Q1 Answer the following questions. (Any 5) 20**
- a. State the wavelength of visible spectrum range. Also name 4 colors in it.
 - b. Describe 2 factors required to view a color. State 1 example.
 - c. Write name & 1 characteristic each of any 2 original.
 - d. State names of 4 digital storage media.
 - e. State the meaning of I) Lens aberration II) flare.
 - f. Define - resolution. ppi, dpi, lpi,
 - g. Define - opacity, optical density.
- Q2 Answer the following questions. (Any 3) 12**
- a. State 4 properties of graphic original for printing.
 - b. State 4 properties of light.
 - c. List 4 graphic software used in printing industry.
 - d. Explain focal length of a lens with diagram.
 - e. Describe any 2 dot shapes with diagram.
- Q3 Answer the following questions. (Any 3). 12**
- a. Draw schematic diagram of additive theory and state its 2 applications.
 - b. Compare line original with continues tone original (2 points).
 - c. State 2 advantages & 2 limitations of digital storage media.
 - d. How depth of focus influences the quality of reproduction?
- Q4 Answer the following questions. (Any 3) 12**
- a. Write 4 characteristics of subtractive color theory.
 - b. Write 2 names each of digital input and output device.
 - c. State names of 4 file formats.
 - d. State 2 advantages and 2 limitations of digital camera.
 - e. State meaning and example each I) Hue II) Saturation.
- Q5 Answer the following questions. (Any 3) 12**
- a. Describe any one densitometer working for color.
 - b. Explain meaning & 1 example each - Magnification, Reduction.
 - c. Write name and purpose of 4 parts of digital camera.
 - d. Describe AM screening technique in 4 points.
 - e. Compare light with color up to 4 points.
- Q6 Answer the following questions. (Any 3) 12**
- a. Input size = 4"x 6" output size = 2"x 3". Is it magnification or reduction? Also find the factor.
 - b. Compare SD card with USB drive up to 2 points.
 - c. Write 2 points each I) screen angle ii) screen ruling.
 - d. Write name and purpose of 4 parts of any one type of densitometer.
-

Government Institute of Printing Technology, Mumbai

Even term end theory examination April / May 2026

Course: Binding & Finishing

Code: M203

Duration: 03.00 Hours

Marks: 80

Instructions to Candidates:

1. Attempt all questions and illustrate your answer with neat sketches wherever necessary.
2. Figures to the right indicate full marks.
3. Assume suitable data if necessary

Q1. Answer the following questions. (Any 5)

20

- a. State 4 applications of finishing operations.
- b. Write 2 advantages and 2 limitations of ISO paper sizes.
- c. Write four names of Binder's aids.
- d. Write name and function of 2 parts of TKT.
- e. Write name and function of any four parts of single knife guillotine machine.
- f. Describe the working of gathering machine.
- g. Name four parts of book sewing machine.

Q2 Answer the following questions. (Any 2)

12

- a. Write names of three machines and their functions related to binding and finishing operations.
- b. Write names and purpose of 6 materials used in binding.
- c. What are 3 main advantages and 3 disadvantages of Three Knife Trimmer.

Q3 Answer the following questions. (Any 2)

12

- a. Draw a diagram of case and write sequence of operations performed on case making machine.
- b. What are limitations and advantages of combination folding machine.
- c. Explain the classification of adhesives.

Q4 Answer the following questions. (Any 2)

12

- a. Describe lamination operation. State its two applications.
- b. Compare knife folding with buckle folding up to 3 points.
- c. Write three properties of board and three applications.

Q5 Answer the following questions. (Any 2)

12

- a. Name any six securing materials and write their applications.
- b. Describe any two safety provisions on single knife guillotine machine?
- c. Write the stages involved in automatic perfect binding machine.

Q6 Answer the following questions. (Any 2)

12

- a. State two applications each of punching, foiling and embossing.
 - b. Explain any one book sewing method.
 - c. Write any 3 problems occurred during paper folding with the help of machine. Also write solutions of the same process.
-

Government Institute of Printing Technology, Mumbai

Even term end theory examination April / May 2024

Course: Printing Process II

Code: M205

Duration: 02.00 Hours

Marks:40

Instructions to Candidates:

1. Attempt all questions and illustrate your answer with neat sketches wherever necessary.
2. Figures to the right indicate full marks.
3. Assume suitable data if necessary

Q1. Answer the following questions. (Any 4)

16

- a. Draw a diagram of inline flexography press.
- b. List advantages of gravure printing process, along with its applications.
- c. Elaborate indirect method of screen making.
- d. List applications of inkjet digital printing process.
- e. Write names with purpose of different graphic software.
- f. State A2 to A4 paper sizes in inches.

Q2 Answer the following questions. (Any 3)

12

- a. Elaborate advantages and limitations of flexography printing process.
- b. Elaborate electro mechanical engraving.
- c. Explain advantages and limitations of screen printing process.
- d. Elaborate advantages and limitations of digital printing.

Q3 Answer the following questions. (Any 3)

12

- a. Elaborate general characteristics of stack flexography press.
 - b. Elaborate working principle of gravure printing process.
 - c. List different material used in screen printing .
 - d. Describe working principle of inkjet printing.
-

Government Institute of Printing Technology, Mumbai

Even term end theory examination April/May 2026 Reg. No. _____

Course: Printing Material Science

Code: M207

Duration: 03.00 Hours

Marks: 80

Instructions to Candidates:

1. Attempt all questions and illustrate your answer with neat sketches wherever necessary.
2. Figures to the right indicate full marks.
3. Assume suitable data if necessary

- Q1. Answer the following questions. (Any 5)** **20**
- a. Write 4 properties of mechanical pulp.
 - b. Elaborate tearing strength of paper.
 - c. Write 4 properties of cigarette paper.
 - d. Write 4 properties of writing paper.
 - e. Elaborate water in ink emulsion & ink in water emulsion.
 - f. Draw labelled diagram of three roll mill. List 2 applications of paste ink.
 - g. Write 2 properties each of I) water washable ink II) Thermochromic ink
- Q2 Answer the following questions. (Any 2)** **12**
- a. Describe paper manufacturing process with neat diagram.
 - b. Explain brightness and whiteness of paper.
 - c. Write function of pigment in ink. Also explain organic pigment.
- Q3 Answer the following questions. (Any 2)** **12**
- a. Describe board manufacturing process with neat diagram.
 - b. Explain grain direction of paper, write its significance with reference to the end use of it.
 - c. Write function of driers in ink. Explain liquid driers & paste driers.
- Q4 Answer the following questions. (Any 2)** **12**
- a. Draw structure of cellulose fiber & list 4 natural sources of fiber.
 - b. Explain printability of paper & also elaborate smoothness property of paper.
 - c. List & explain any two additives used in printing ink.
- Q5 Answer the following questions. (Any 2)** **12**
- a. Define green printing. Write its 2 benefits & 4 ways of doing it.
 - b. With neat diagram elaborate liquid ink manufacturing process.
 - c. Write general formulation of offset ink. Also write function of each ingredient.
- Q6 Answer the following questions. (Any 2)** **12**
- a. List 6 factors & elaborate any 3 in details; which affect cost of paper.
 - b. Elaborate end use properties of ink I) light fastness II) Rub resistance
 - c. Explain I) oxidation & polymerization. II) Absorption ink drying method.
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Government Institute of Printing Technology, Mumbai

Even term end theory examination April / May 2026 Reg No: _____

Course: Image Carrier Plano

Code: M209

Duration: 02.00 Hours

Marks:40

Instructions to Candidates:

1. Attempt all questions and illustrate your answer with neat sketches wherever necessary.
2. Figures to the right indicate full marks.
3. Assume suitable data if necessary

Q1. Answer the following questions. (Any 4)

16

- a. State 2 characteristics each of analog and digital plates.
- b. Define imposition and state meaning of full sheet work and half sheet work imposition.
- c. Write 4 properties of base materials used for plate.
- d. State purpose of gum-Arabic and lacquer in plate processing.
- e. Write 4 properties of LASER.
- f. I) Write names of 2 plate manufacturing companies.
II) Write names of 2 software related to plate making
- g. Describe working of auto-plate processor.

Q2 Answer the following questions. (Any 2)

12

- a. Explain graining and counter-etching.
- b. Describe any 2 QC tests related to plate making.
- c. Describe CtP workflow. State 2 characteristics of CtP.

Q3 Answer the following questions. (Any 2)

12

- a. Describe any 3 properties of photographic film used for plate making.
 - b. Describe any 3 properties of light sensitive coating of plate.
 - c. Describe construction and working principle of waterless plates.
-

Government Institute of Printing Technology, Mumbai

Even term end theory examination April / May 2026 Reg. No. _____

Course: Colour Essentials

Code: M211

Duration: 03.00 Hours

Marks:80

Instructions to Candidates:

1. Attempt all questions and illustrate your answer with neat sketches wherever necessary.
2. Figures to the right indicate full marks.
3. Assume suitable data if necessary

Q1. Answer the following questions. (Any 5)

20

- a. What is colour? Explain its significance in printing.
- b. Explain colour sensing elements of a human eye.
- c. Define colour specification and standardization.
- d. State 2 advantages and 2 limitations of CIELUV space.
- e. State the concept of colorimeter and densitometer.
- f. State 2 causes and 2 remedies of dot gain.
- g. What is moire defect? How to avoid it.

Q2 Answer the following questions. (Any 2)

12.

- a. Explain with a diagram the working principle of Munsell colour specification system.
- b. Write a short note on different colour measuring instruments used in printing industry.
- c. With a neat diagram explain the application of subtractive theory in printing.

Q3 Answer the following questions. (Any 2).

12

- a. Differentiate between additive and subtractive theory (up to 6 point).
- b. Explain the function of rods and cones. Also state the effect of damaged rods and cones.
- c. Write a short note on device dependent and device independent colors.

Q4 Answer the following questions. (Any 2)

12

- a. Explain the concept of spectral reflection, transmission and absorption with a diagram.
- b. Define tristimulus value of colours. State its characteristics.
- c. With a neat diagram explain the working of densitometer.

Q5 Answer the following questions. (Any 2)

12

- a. Define colour and light. Explain how they are related and applied in printing industry.
- b. Explain in detail the process of halftone printing with respect to additivity and proportionality failure.
- c. Write a short note on different colour separation graphic aids used in printing industry.

Q6 Answer the following questions. (Any 2)

12

- a. calculate (ΔE) for the following (CIE Lab Model)
 - I) Sample 1: L=65, a=3, b=10
Sample 2 : L=62, a=5, b=11
 - II) Sample 1 : L=32, a=4, b=12
Sample 2 : L=32, a=5, b=17
 - b. With neat diagram, explain the concept of trapping. State formula of trapping % calculation.
 - c. Write a short note on screen angles and dot shapes used in offset printing process.
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Government Institute of Printing Technology, Mumbai

Even term end theory examination April/May 2026

Course: Press Management

Code: M401

Duration: 03.00 Hours

Marks:80

Instructions to Candidates:

1. Attempt all questions and illustrate your answer with neat sketches wherever necessary.
2. Figures to the right indicate full marks.
3. Assume suitable data if necessary

Q1. Answer the following questions. (Any 5)

20

- a. Write four advantages of management in printing industry.
- b. Write four functions of manager in a small printing press.
- c. Write names of any 4 co-operative organization.
- d. Describe the meaning of inventory with example in printing press.
- e. Describe two salient feature of copyright act.
- f. State two functions each of sales and marketing.
- g. Explain the purpose of control charts.

Q2 Answer the following questions. (Any 2)

12

- a. How directing and controlling are important in printing industry?
- b. State 6 examples of quality control in printing company.
- c. Explain how statics helps in print production.

Q3 Answer the following questions. (Any 2)

12

- a. How purchase is carried out in a press? State 6 major items.
- b. Describe six sigma concept.
- c. Explain use of control chart for print production.

Q4 Answer the following questions. (Any 2)

12

- a. State 3 characteristics each of single owner and partner type business organization.
- b. Explain the meaning of diminishing utility and equilibrium.
- c. State 6 points about ISO standard in printing industry.

Q5 Answer the following questions. (Any 2)

12

- a. Describe 5S concept with example of printing press.
- b. Explain objectives of SPC.
- c. State 6 points related to factories act.

Q6 Answer the following questions. (Any 2)

12

- a. Describe the structure of large scale printing company.
 - b. Write 3 points related to two leadership style.
 - c. Explain with example, how to calculate process capability.
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Government Institute of Printing Technology, Mumbai

Even term end theory examination April/ May 2026

Course: Costing and Estimating

Code: M402

Duration: 03.00 Hours

Marks:80

Instructions to Candidates:

1. Attempt all questions and illustrate your answer with neat sketches wherever necessary.
2. Figures to the right indicate full marks.
3. Assume suitable data if necessary

Q1. Answer the following questions. (Any 5)

20

- a. Describe the need of cost control.
- b. Elaborate time rate system.
- c. Prepare sample material requisition form for printing press.
- d. Calculate weight of 750 sheets of 100 gsm A4 size sheets.
- e. State 4 factors on which wastage allowance depends.
- f. List 4 operations for finishing of a book.
- g. Describe two contents of invoice.

Q2 Answer the following questions. (Any 2)

12

- a. Explain 3 factors to be considered to calculate hourly cost rate.
- b. Write name & purpose of 3 contents of work instruction tickets.
- c. List in sequence operations in newspaper, production (pre press to post press)

Q3 Answer the following questions. (Any 2)

12

- a. Explain any 3 factors affecting profitability in a small printing press.
- b. Describe 3 factors affecting the cost of prepress operations.
- c. Explain the meaning of GST. State its 4 characteristics.

Q4 Answer the following questions. (Any 2)

12

- a. Describe 3 factors affecting life of flexographic printing machines.
- b. A book having 156 pages, 10,000 quantity, A5 size is to be printed on A2 size 50 gsm paper. Calculate number of A2 size reams required & weight (kg) of the reams.
- c. Write 6 technical specifications for 'Label'.

Q5 Answer the following questions. (Any 2)

12

- a. Describe 3 different types of cost with one example each.
- b. List 6 contents of tender document to print a monthly magazine.
- c. Explain SPANKS formula.

Q6 Answer the following questions. (Any 2)

12

- a. Explain work rate system. State 2 examples related to printing industry.
 - b. Explain 2 applications of cost sheet in printing industry.
 - c. Calculate weight of 100 reels each roll is of width 1200 mm length 500 m & 50 gsm. Also calculate total cost of paper is rate is Rs.60 per kg.
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Government Institute of Printing Technology, Mumbai

Even term end theory examination April / May 2026 Reg. No. _____

Course: Gravure Printing Process

Code: M501

Duration: 03.00 Hours

Marks:80

Instructions to Candidates:

1. Attempt all questions and illustrate your answer with neat sketches wherever necessary.
2. Figures to the right indicate full marks.
3. Assume suitable data if necessary

- Q1. Answer the following questions. (Any 05) 20**
- a. Describe working principle of gravure printing.
 - b. Draw schematic diagram of doctor blade holder assembly.
 - c. Differentiate up to 4 points - common shaft and individual shaft.
 - d. State 4 ideal requirements of gravure ink.
 - e. Describe formulation of gravure printing ink.
 - f. State causes and remedies of any 2 doctor blade related problems.
 - g. State causes and remedies of any 2 impression roller related problems
- Q2 Answer the following questions. (Any 2) 12**
- a. Define static and dynamic balance of gravure cylinder.
 - b. Write any 4 limitations of chemical etching.
 - c. Describe working of gravure proofing press.
- Q3 Answer the following questions. (Any 2) 12**
- a. Compare gravure cylinder with offset & flexo plates.
 - b. Stages of gravure cylinder reclaiming.
 - c. Describe working principle and 2 advantages of laser engraving.
- Q4 Answer the following questions. (Any 2) 12**
- a. State effect of variation in any 4 electroplating variables.
 - b. Draw schematic diagram of electroplating unit & state working principle.
 - c. List any 4 additives along with 1 example used in gravure ink.
- Q5 Answer the following questions. (Any 2) 12**
- a. Draw schematic diagram of integral & demountable shaft cylinder.
 - b. Differentiate electronic and chemical etching of cylinder.
 - c. Write working principle and advantages of electronic line shaft.
- Q6 Answer the following questions. (Any 2) 12**
- a. State 4 physical properties of nickel, chromium & copper.
 - b. Draw schematic diagram of any 4 types of cells.
 - c. List 4 materials and 4 profiles used in doctor blade manufacturing.
-

Government Institute of Printing Technology, Mumbai

Even term end theory examination April / May 2026 Reg. No. - _____

Course: Flexographic Printing Process

Code: M502

Duration: 03.00 Hours

Marks: 80

Instructions to Candidates:

1. Attempt all questions and illustrate your answer with neat sketches wherever necessary.
2. Figures to the right indicate full marks.
3. Assume suitable data if necessary

- Q1. Answer the following questions. (Any 5)** **20**
- a. Write any four properties of plastics substrate used for flexible packaging.
 - b. List any four ink ingredients with their role.
 - c. Write merits of flexo graphic printing process (any 4).
 - d. Draw diagram of any one configuration of flexo printing machine.
 - e. Draw diagram showing reverse & forward angle arrangement.
 - f. Describe four application area of flexographic printing.
 - g. Write the screen angles used in multi colour printing.
- Q2 Answer the following questions. (Any 2)** **12**
- a. Write the flow chart of liquid photo-polymer plate making.
 - b. Draw a labelled cross section diagram of sheet photopolymer plate.
 - c. Write the metals used for doctor blade and describe doctor blade profile.
- Q3 Answer the following questions. (Any 2)** **12**
- a. Write six advantages of CTP flexographic system.
 - b. Draw schematic diagram of anilox roller different cell shapes.
 - c. Write the advantages of sleeve type flexo graphic image carrier.
- Q4 Answer the following questions. (Any 2)** **12**
- a. Name the different tests taken in the flexographic printed products.
 - b. What is magnetic cylinder? State its advantages.
 - c. Draw a labelled schematic diagram of winder unit of flexo printing machine.
- Q5 Answer the following questions. (Any 2)** **12**
- a. Write three limitations of C.I. press and stack press of flexo printing.
 - b. Write the advantages & disadvantages sleeve cylinder image carrier at flexo press.
 - c. Compare flexographic printing with gravure printing process on 6 bases.
- Q6 Answer the following questions. (Any 2)** **12**
- a. List any four inline operations & converting operations.
 - b. Draw schematic diagram at photopolymer sheet with less exposure result on plate.
 - c. Draw schematic diagram of images of sheet photo polymer plates for under and over exposure of back exposure.
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Government Institute of Printing Technology, Mumbai

Even term end theory examination April / May 2026

Reg. No: _____

Course: Plano Sheetfed Printing

Code: M504

Duration: 03.00 Hours

Marks:80

Instructions to Candidates:

1. Attempt all questions and illustrate your answer with neat sketches wherever necessary.
2. Figures to the right indicate full marks.
3. Assume suitable data if necessary

Q1. Answer the following questions. (Any 5)

20

- a. State 2 differentiate between offset and dry offset processes.
- b. List 4 companies that manufacture offset printing machines.
- c. List 4 types of gear mechanism used on offset machine.
- d. Describe the meaning of ink water balance.
- e. Explain the importance of printing pressure.
- f. State the purpose of registration marks. Also describe how to use it.
- g. State names of 2 grades of paper.

Q2 Answer the following questions. (Any 2)

12

- a. Explain the principles behind lithographic offset printing process.
- b. State name and purpose of any 3 contents of dampening solution.
- c. Describe the function of side lay along with its 2 types.

Q3 Answer the following questions. (Any 2)

12

- a. Explain construction and working of conventional dampening system.
- b. State 2 characteristics each of spur gear and helical gear. Also draw diagrams.
- c. Explain the construction and working of star target.

Q4 Answer the following questions. (Any 2)

12

- a. Write name and purpose of 6 parts of feeding unit.
- b. Describe the procedure of ink key setting. Also describe effect of heat on inking system.
- c. Describe construction of any one type of blanket with diagram.

Q5 Answer the following questions. (Any 2)

12

- a. Describe single sheet feeding and stream feeding.
- b. List 2 materials used as ink roll converting. State 2 properties each.
- c. Explain the meaning and need of undercut and cylinder gap on blanket cylinder with diagram.

Q6 Answer the following questions. (Any 2)

12

- a. Explain two problems and remedies related to the feeding unit.
 - b. Explain working of multi roll inking system with diagram.
 - c. Describe 'perfecting' operation. Draw a neat diagram.
-

Government Institute of Printing Technology, Mumbai

Even term end theory examination April/May 2026 Reg. No: _____

Course: Press Work Web

Code: M506

Duration: 03.00 Hours

Marks:80

Instructions to Candidates:

1. Attempt all questions and illustrate your answer with neat sketches wherever necessary.
2. Figures to the right indicate full marks.
3. Assume suitable data if necessary

Q1. Answer the following questions. (Any 5)

20

- a. Describe working principle of webfed printing.
- b. Describe working of radiation dryers.
- c. Draw a schematic diagram of chopper folder.
- d. Explain the meaning of register control on webfed press.
- e. State the principle - 'Persistence of vision'. Describe its applications.
- f. List 2 applications each of perforation and sprocket punching.
- g. State the meaning & reason of sagging of web.

Q2 Answer the following questions. (Any 2)

12

- a. State 2 characteristics of inline machine. Also draw diagram showing 2 color inline machine.
- b. Explain 2 types of reel locking mechanism.
- c. Explain construction and working of former folder.

Q3 Answer the following questions. (Any 2)

12

- a. Explain any 3 factors affecting web tension.
- b. Describe construction and working of High Velocity Hot air dryers.
- c. Describe construction and working of box tilt.

Q4 Answer the following questions. (Any 2)

12

- a. State 3 characteristics of satellite configuration. Draw a schematic diagram.
- b. Explain construction and working of flying splicer.
- c. State 3 characteristics each of slitting and trimming.

Q5 Answer the following questions. (Any 2)

12

- a. Explain 2 types and 2 locations of reel stand.
- b. Describe construction and working of any one type of chiller.
- c. Explain the meaning of fan out. Also describe how it is controlled.

Q6 Answer the following questions. (Any 2)

12

- a. Explain construction and working of dancer roller.
 - b. Describe former folding operation with schematic diagram.
 - c. Explain any 3 problems related to webfed printing along with their causes and remedies.
-

Government Institute of Printing Technology, Mumbai

Even term end theory examination April / May 2026

Course: Digital Printing

Code: M507

Duration: 03.00 Hours

Marks: 80

Instructions to Candidates:

1. Attempt all questions and illustrate your answer with neat sketches wherever necessary.
2. Figures to the right indicate full marks.
3. Assume suitable data if necessary

Q1. Answer the following questions. (Any 5)

20

- a. Define digital printing and state its advantages.
- b. State working principle of electrophotography.
- c. State 2 applications of digital printing technology.
- d. Define resolution in digital printing.
- e. List types of digital proofing.
- f. State function of RIP in digital workflow.
- g. Write names of four digital printer manufacturers.

Q2 Answer the following questions. (Any 2)

12

- a. Compare conventional printing and digital printing (6 points).
- b. Explain working of continuous inkjet printing with diagram.
- c. List general composition of inkjet ink with one function each of ingredients.

Q3 Answer the following questions. (Any 2)

12

- a. Explain stages of electrophotography process.
- b. Write 6 substrates used in large format printing with one application of each.
- c. Explain soft proofing process with advantages.

Q4 Answer the following questions. (Any 2)

12

- a. Explain classification of inkjet printing technology.
- b. Explain importance of color calibration in digital printing.
- c. Explain stages of RIP

Q5 Answer the following questions. (Any 2)

12

- a. Describe thermal transfer printing process.
- b. Explain working principal of Drop On Demand inkjet printer.
- c. Explain SWOP and GRACOL standards in digital proofing.

Q6 Answer the following questions. (Any 2)

12

- a. Which digital printing process is used for Hard proofing, POD, VDP? Give example of each.
- b. Compare ink properties and compositions used in Thermal printer.
- c. Explain printing processes used for wide format printing with applications.

Government Institute of Printing Technology, Mumbai

Even term end theory examination April / May 2026 Reg. No: _____

Course: Electronic Color Correction

Code: M508

Duration: 03.00 Hours

Marks: 80

Instructions to Candidates:

1. Attempt all questions and illustrate your answer with neat sketches wherever necessary.
2. Figures to the right indicate full marks.
3. Assume suitable data if necessary

Q1. Answer the following questions. (Any 5)

20

- a. State functions of Rods & Cones in human eye.
- b. List four factors affecting scan quality.
- c. Define resolution & pixel.
- d. State color separation & color correction.
- e. Define bit depth of color.
- f. List four features of postscript format.
- g. State purpose of black point compensation.

Q2 Answer the following questions. (Any 2)

12

- a. Describe any one color theory.
- b. Define color management & describe its purpose.
- c. Explain construction & working of spectrophotometer.

Q3 Answer the following questions. (Any 2)

12

- a. Describe functions of Raster image processor.
- b. Explain color management workflow.
- c. Describe working principle of densitometer.

Q4 Answer the following questions. (Any 2)

12

- a. Describe additive failure.
- b. Describe color gamut mapping.
- c. Explain substrate & LPI relation for quality printing.

Q5 Answer the following questions. (Any 2)

12

- a. Compare PMT & CCD upto six points.
- b. Define ICC & describe its functions.
- c. Describe CIP4 workflow.

Q6 Answer the following questions. (Any 2)

12

- a. Describe data transmission & data compression.
 - b. Explain any two rendering intents.
 - c. State formula for hue error & explain its terms & calculate hue error % of midtone density of 1.15, highlight density 0.15 & solid density 1.6 for uncoated paper.
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