

26.5.24

15. (அ) நடுநாட்டு சொல் அகராதி குறித்து கட்டுரை வரைக.

(அல்லது)

(ஆ) வட்டார வழக்குச் சொல் அகராதி தற்காலத்தின்பயன்படும் விதத்தை ஆராய்க.

பகுதி இ — (3 × 10 = 30 மதிப்பெண்கள்)

எவையேனும் மூன்று வினாக்களுக்கு கட்டுரை அளவில் விடை தருக.

16. நடைமுறை வாழ்வியலுக்கு அகராதி பயன்படும் விதத்தை ஆராய்க.
17. தொல்காப்பியமும் அகராதியும் ஒப்பாய்வு செய்க.
18. தமிழ் நிகண்டுகளின் வளர்ச்சி வரலாற்றினை கட்டுரை வரைக.
19. தமிழில் கலைச் சொல்லின் வரலாற்றைக் கட்டுரை வரைக.
20. அகராதியால் விளையும் பயன்களைப் பட்டியலிடுக.

60019/ATMPS41/
ABLPS41

APRIL 2026

அகராதியியல்

Time : Three hours

Maximum : 75 marks

பகுதி அ — (10 × 1 = 10 மதிப்பெண்கள்)

அனைத்து வினாக்களுக்கும் விடை தருக.

சரியான விடையைத் தேர்வு செய்க :

1. லெக்சிகோ என்னும் சொல் எம் மொழியில் இருந்து பிறந்தது?
(அ) கிரேக்கம் (ஆ) இலத்தின்
(இ) பிரெஞ்சு (ஈ) இத்தாலி
2. இலக்கணப் பொருள் எவற்றோடு தொடர்புடையவை?
(அ) உருபனியல் (ஆ) ஒலியியல்
(இ) வினையியல் (ஈ) மரபியல்
3. அகராதியை முறையற்ற வடிவங்களின் பட்டியல் என்று கூறியவர்?
(அ) புரூம்பீல்டு (ஆ) பாலசுப்ரமணியன்
(இ) நாச்சிமுத்து (ஈ) கிரெனல்
4. தமிழ் அகராதியின் தந்தை என்று அழைக்கப்படுபவர் யார்?
(அ) கால்டுவெல் (ஆ) சீகன் பால்கு
(இ) வீரமாமுனிவர் (ஈ) ஜியுபோப்

5. நிகண்டுகள் பெரும்பாலும் எத்தனை உட்பிரிவுகளை கொண்டிருக்கும்?

(அ) 9 (ஆ) 10

(இ) 11 (ஈ) 12

6. விருத்தப்பாவில் அமைந்த நிகண்டு

(அ) திவாகரம் (ஆ) பிங்கலம்

(இ) குடாமணி (ஈ) தீபிகை

7. உரிச்சொல் எதற்கு பொருட்பெயராக விளங்கியது?

(அ) லெக்சிகாலஜி (ஆ) அகராதி

(இ) நிகண்டு (ஈ) தொல்காப்பியம்

8. தமிழ்ப் புலத்தில் முதன்முதலாக அச்சேறிய அகராதி?

(அ) பர்மா - தமிழ் ஒக்காபுலோரி

(ஆ) தமிழ் உரைநடை அகராதி

(இ) தமிழ் - போர்த்துக்கீசிய அகராதி

(ஈ) சதுரகராதி

9. அகராதி புலமை உலகு போற்றும் அகராதியலின் தந்தை யார்?

(அ) ரைச்சின் எக்மேன் (ஆ) லாடிஸ்லாவ் சுசுஸ்தா

(இ) வியக்கண்ட் (ஈ) ஹவுஸ் மேன்

10. வட்டார வழக்கு தமிழகராதியை இயற்றியவர் ?

(அ) வீரமாமுனிவர் (ஆ) கி. இராஜநாராயணன்

(இ) பெருமாள் முருகன் (ஈ) கண்மணி குணசேகரன்

பகுதி ஆ — (5 × 7 = 35 மதிப்பெண்கள்)

அனைத்து வினாக்களுக்கும் இரண்டு பக்க அளவில் விடை தருக.

11. (அ) அகராதி என்பதற்கு பல்வேறு அறிஞர்களின் கூற்றை விவரிக்க.

(அல்லது)

(ஆ) பல பொருளுக்கு ஒரு சொல் எவ்வாறு பயின்று வரும் என்பதை எடுத்துரைக்க.

12. (அ) இலக்கணத்திற்கு முந்தைய அகராதி நிலையனைத் தொகுக்க.

(அல்லது)

(ஆ) நிகண்டுகளுக்கு முந்தைய அகராதிகளின் பயன்பாட்டை ஆராய்க.

13. (அ) நிகண்டுகளின் அமைப்பு முறையினைத் விளக்கி வரைக.

(அல்லது)

(ஆ) நிகண்டுகளின் பொருட் பாகுபாட்டினை ஆராய்க.

14. (அ) அகராதியின் தோற்றத்தை எடுத்துரைக்க.

(அல்லது)

(ஆ) சதுரகராதியின் பயன்பாடு குறித்து எழுதுக.

11.6.2026(FN)

(6 pages)

60055/AENPC21

APRIL 2026

BRITISH LITERATURE — I

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the right answer from the following :

1. What time of day is it when "Elegy Written in a Country Churchyard" begins?
 - (a) Midnight
 - (b) Early morning
 - (c) Late afternoon
 - (d) Noon
2. In "The Canonization", the speaker compares himself and his lover to which of the following?
 - (a) Saints and pilgrims
 - (b) Moths and tapers
 - (c) Rivers and oceans
 - (d) Books and poems
3. In what year did Charles Lamb publish his classic essay 'Dissertation upon Roast' in the London Magazine?
 - (a) 1795
 - (b) 1822
 - (c) 1799
 - (d) 1807
4. Which pseudonym did Richard Steele use for himself in 'The Spectator' essays?
 - (a) Cato
 - (b) Sir Roger de Coverley
 - (c) Isaac Bickerstaff
 - (d) Philo-Tatler
5. What was Lodovico's crime?
 - (a) Murder
 - (b) Theft
 - (c) Treason
 - (d) Adultery
6. Where is Vittoria sent after her trial?
 - (a) Church
 - (b) Jail
 - (c) a "house of convertites"
 - (d) Cornelia's home

7. To which Greek mythological character is Faustus compared in the Prologue?

- (a) Hercules (b) Perseus
(c) Icarus (d) Theseus

8. How long does Faustus demand that Mephistophilis serve him?

- (a) Thirty years
(b) Twenty-four years
(c) One hour
(d) A century

9. How was Gulliver stranded in Lilliput?

- (a) He survives a shipwreck
(b) His crew abandons him
(c) He is dropped there by an enormous eagle
(d) He stops there for provisions and is trapped while he sleeps

10. Who is Gulliver's main caretaker in Brobdingnag?

- (a) The farmer (b) The queen
(c) Reldresal (d) Glumdalclitch

SECTION B — (5 × 7 = 35 marks)

Answer ALL the questions, choosing either (a) or (b)
not exceeding 2 pages.

11. (a) Write a note on the epitaph in "Elegy Written in a Country Churchyard".

Or

(b) What does the poet wish for after death in "Ode on Solitude"?

12. (a) Give a brief description of the members of the Spectator Club as given by Richard Steele in his essay.

Or

(b) How does "A City Night-piece" describe the sufferings of the poor in English society?

13. (a) Who is the white devil?

Or

(b) Analyse the climax of *The White Devil*.

14. (a) Why did Dr. Faustus sell his soul?

Or

(b) The dilemma of Doctor Faustus mirrors that larger intellectual crisis of the renaissance. Discuss.

15. (a) What was the reason for the war between Lilliput and Blefuscu?

Or

(b) Why did Gulliver have to leave the Houyhnhnms?

SECTION C — (3 × 10 = 30 marks)

Answer any THREE of the following not exceeding
4 pages.

16. What promise does Robert Burns make in "A Red, Red Rose"?

17. How does Lamb portray the characters of the young boy, Bo-bo, who burns down the house and his father, Ho-ti, in the story?

18. Discuss the various themes in *The White Devil*.

19. Discuss the role of Mephistophilis in the damnation of Dr. Faustus.

20. Consider Gulliver's Travels as a satire.

22.5.26 (AN)

14. (a) With suitable examples, justify the importance of minerals in human health.

Or

- (b) Describe the biological functions and deficiency disorders of copper.
15. (a) Explore the supplementation programs in India to combat malnutrition.

Or

- (b) Discuss the impact of carbohydrate deficiencies of human health.

PART C — (3 × 10 = 30 marks)

Answer any THREE of the following questions.

16. Describe the importance of health care for children and adults.
17. Explain the sources, biochemical functions and deficiency symptoms of Vitamin D.
18. Justify the role of fat in human health.
19. Elaborate the sources, biological functions and deficiency disorders of iron.
20. Enumerate the primary functions of proteins and carbohydrates in health.

61118/SBCPS11

APRIL 2026

HEALTH AND NUTRITION

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL the questions.

Choose the correct answer :

1. The organ primarily responsible for metabolism and energy production is
- (a) Heart (b) Brain
- (c) Liver (d) Lungs
2. What is the primary source of energy in a balanced diet?
- (a) Protein (b) Fats
- (c) Carbohydrates (d) Vitamins
3. Which vitamin deficiency causes night blindness?
- (a) Vitamin A (b) Vitamin B
- (c) Vitamin C (d) Vitamin D
4. The vitamin that helps in the absorption of calcium is
- (a) Vitamin A (b) Vitamin B
- (c) Vitamin C (d) Vitamin D

5. Omega-3 fatty acids are found in
 - (a) Red meat (b) Fish
 - (c) Cheese (d) Butter
6. HDL is known as
 - (a) Bad cholesterol
 - (b) Neutral cholesterol
 - (c) Good cholesterol
 - (d) Unhealthy cholesterol
7. Deficiency of which mineral leads to anemia?
 - (a) Calcium (b) Phosphorus
 - (c) Zinc (d) Iron
8. What is the primary function of potassium in the body?
 - (a) Bone strength
 - (b) Muscle contraction and nerve function
 - (c) Blood clotting
 - (d) Vision improvement
9. The following is NOT a dietary source of carbohydrates
 - (a) Rice (b) Potatoes
 - (c) Wheat (d) Cheese

10. Which protein deficiency disorder is characterized by swollen belly and fluid retention?
 - (a) Marasmus (b) Scurvy
 - (c) Kwashiorkor (d) Beriberi

PART B — (5 × 7 = 35 marks)

Answer ALL questions.

11. (a) Mention the major components of balanced diet.

Or

- (b) Elaborate the major factors affecting human health.

12. (a) Outline the functions and deficiency manifestation of vitamin A.

Or

- (b) Explain in detail the functions and deficiency symptoms of vitamin B12.

13. (a) Discuss the adverse effects of fats in diet.

Or

- (b) Enumerate the role of dietary fats in energy storage and hormone production.

06/05/26 (FN)

(6 pages)

61207/SMVPT61

APRIL 2026

PHARMACEUTICAL MICROBIOLOGY

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Normal skin flora of pharmaceutical workers mainly consists of
 - (a) *Escherchia coli*
 - (b) *Bacillus anthracis*
 - (c) *Salmonella Typhi*
 - (d) *Staphylococcus epidermidis*
2. Controlled environments are classified based on
 - (a) Microbial load
 - (b) Particle count
 - (c) Temperature
 - (d) Humidity

3. Filtration membranes commonly used are
 - (a) 1.0 μm
 - (b) 0.8 μm
 - (c) 0.45 μm
 - (d) 0.22 μm
4. Dry heat sterilization mainly destroys microorganisms by
 - (a) Oxidation
 - (b) Coagulation
 - (c) Denaturation
 - (d) Hydrolysis
5. L-asparaginase is used in
 - (a) Tuberculosis
 - (b) Cancer therapy
 - (c) Fungal infections
 - (d) Viral diseases
6. Amphotericin-B acts by binding to:
 - (a) Cholesterol
 - (b) DNA
 - (c) Peptidoglycan
 - (d) Ergosterol
7. Multivalent vaccines are preferred because they
 - (a) Reduce antigenicity
 - (b) Require fewer trials
 - (c) Protect against multiple strains
 - (d) Provide passive immunity

8. DNA vaccines differ from conventional vaccines because they

- (a) Stimulate antigen production inside host cells
- (b) Directly supply antibodies
- (c) Are always live vaccines
- (d) Provide only passive immunity

9. GMP guidelines are primarily designed to ensure that pharmaceutical products are

- (a) Economical
- (b) Safe, effective and of consistent quality
- (c) Rapidly marketed
- (d) Patent protected

10. Quality assurance is

- (a) Product-oriented
- (b) Result-oriented
- (c) Testing-oriented
- (d) Process-oriented

SECTION B — (5 × 7 = 35 marks)

Answer ALL questions. Either or type.

11. (a) Write the design and layout of sterile manufacturing facilities.

Or

(b) Describe environmental monitoring and its importance in pharmaceutical industries.

12. (a) Explain gaseous sterilization with special reference to ethylene oxide.

Or

(b) Discuss pyrogens and endotoxins, their sources, detection and removal.

13. (a) Describe the production and therapeutic use of antifungal antibiotics.

Or

(b) Elaborate immobilization of enzymes and its applications in pharmaceuticals.

14. (a) Mention different types of immunoglobulins and their clinical importance.

Or

- (b) Write the vaccine clinical trials and their phases.

15. (a) Explain process validation and its significance in pharmaceutical manufacturing.

Or

- (b) Discuss about documentation practices followed in Quality Assurance.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

Each question carries 10 marks.

16. What are quality assurance and quality control? Explain their principles, procedures and significance in ensuring reliability of laboratory findings.
17. Elaborate microbial contamination and spoilage of pharmaceutical products with suitable examples.

18. Explain the production and applications of streptokinase and streptodornase.
19. Discuss DNA vaccines and synthetic peptide vaccines in detail.
20. Describe ISO standards and their application in pharmaceutical industries.

11-6-2026(FN)

(6 pages)

**60406/ABAPC21/
ABVPC21**

APRIL 2026

MARKETING MANAGEMENT

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 1 = 10 marks)

Answer ALL questions.

1. What is a product mix?
 - (a) The total number of products a company offers
 - (b) The different product lines a company offers
 - (c) The different product variations within a product line
 - (d) All of the above
2. What is product line extension?
 - (a) Introducing a new product category
 - (b) Adding new product variations to an existing product line
 - (c) Deleting a product from a product line
 - (d) Repositioning a product line
3. What is the first stage of the new product development process?
 - (a) Idea generation
 - (b) Screening
 - (c) Business analysis
 - (d) Product development
4. What is the purpose of test marketing?
 - (a) To evaluate a products potential in a limited market
 - (b) To develop a new product
 - (c) To launch a product on a national scale
 - (d) To conduct market research
5. What is the first stage of the product life cycle?
 - (a) Introduction
 - (b) Growth
 - (c) Maturity
 - (d) Decline
6. What happens during the decline stage of the product life cycle?
 - (a) Sales and profits increase rapidly
 - (b) Sales and profits decline
 - (c) Sales remain stable, but profits decline
 - (d) Sales and profits remain stable

7. What is the purpose of branding?
- (a) To create a unique identity for a product
 - (b) To increase the price of a product
 - (c) To create a new product category
 - (d) To target a wider range of customers
8. What is the purpose of packaging?
- (a) To protect the product
 - (b) To promote the product
 - (c) To facilitate storage and transportation
 - (d) All of the above
9. What is the breakeven point?
- (a) The point at which total revenue equals total costs
 - (b) The point at which profits are maximized
 - (c) The point at which sales volume is highest
 - (d) The point at which costs are minimized

10. What are the three main pricing objectives?
- (a) Profit maximization, sales maximization, and market share maximization
 - (b) Cost-plus pricing, target return pricing, and value-based pricing
 - (c) Penetration pricing, skimming pricing, and odd-even pricing
 - (d) All of the above

SECTION B — (5 × 7 = 35 marks)

Answer ALL questions, choosing either (a) or (b).

11. (a) Discuss the role of product life cycle in marketing strategy.

Or

- (b) Explain the concept of price elasticity of demand.

12. (a) What are the different bases for market segmentation?

Or

- (b) How can businesses effectively target specific market segments?

13. (a) What are the key components of effective sales force management?

Or

- (b) Explain the concept of customer relationship management (CRM).
14. (a) Develop a marketing strategy for a new product launch.

Or

- (b) Discuss challenges and opportunities faced by businesses in the digital age.
15. (a) Explain the concept of sustainable marketing.

Or

- (b) Discuss challenges and opportunities faced by businesses in promoting sustainable products.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE out of Five.

16. Explain the concept of corporate social responsibility (CSR).
17. Explain the concept of globalization.

18. Discuss cultural factors influencing marketing decisions in international markets.
19. Discuss the role of big data in marketing.
20. Explain the concept of artificial intelligence AI in marketing.

4. Lampbrush chromosomes are found in
 - (a) Human liver cells
 - (b) Oocytes of amphibians
 - (c) Bacterial cells
 - (d) Nerve cells
5. Which type of transport does NOT require energy?
 - (a) Active transport
 - (b) Endocytosis
 - (c) Passive transport
 - (d) Exocytosis
6. The transport of molecules from a lower concentration to a higher concentration is
 - (a) Passive diffusion
 - (b) Facilitated diffusion
 - (c) Active transport
 - (d) Osmosis
7. The longest in the cell cycle is
 - (a) G1 phase
 - (b) S phase
 - (c) G2 phase
 - (d) M phase
8. Cancer cells are defined as
 - (a) Cells that never undergo mitosis
 - (b) Cells that divide uncontrollably and invade other tissues
 - (c) Cells that die immediately after formation
 - (d) Cells that undergo only meiosis

9. The type of membrane protein involved in facilitated diffusion is
 - (a) Channel proteins
 - (b) Enzymes
 - (c) Hormones
 - (d) Ribosomes
10. The fluid mosaic model describes the structure of
 - (a) Ribosomes
 - (b) Mitochondria
 - (c) Cell membranes
 - (d) Nucleus

SECTION B — (5 × 7 = 35 marks)

Answer ALL questions.

11. (a) Sketch the structure and functions of mitochondria.
Or
(b) Differentiate prokaryotic and eukaryotic cells.
12. (a) Describe the structure and functions of nucleus in a eukaryotic cell.
Or
(b) Explain their role of histones in chromatin organization.
13. (a) Justify the role of microtubules in cell architecture and functions.
Or
(b) Explain the structural organization of membrane based on the lipid bilayer model.

11.6.2026FN

(6 pages)

61352/SNTPC21

APRIL 2026

JAVA PROGRAMMING AND DATA STRUCTURES

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL the questions.

Choose the correct answer :

1. Which data structure is used for function call management in recursion?
 - (a) Queue
 - (b) Stack
 - (c) Linked List
 - (d) Array
2. The traversal technique visits the left subtree, root and right subtree is _____.
 - (a) Preorder
 - (b) Postorder
 - (c) Inorder
 - (d) Level Order
3. Which of the following is NOT a valid Java data type?
 - (a) int
 - (b) float
 - (c) double
 - (d) real
4. What is the default value of a boolean variable in Java?
 - (a) true
 - (b) false
 - (c) 0
 - (d) null
5. _____ is the keyword used to create an object in Java.
 - (a) class
 - (b) object
 - (c) new
 - (d) create

6. Which of the following statements about constructors is true?
- (a) Constructors must have a return type
 - (b) Constructors can be overloaded
 - (c) Constructors cannot be defined in a class
 - (d) Constructors are called explicitly using the call keyword
7. The keyword used to implement an interface in java is _____
- (a) extends
 - (b) implements
 - (c) interface
 - (d) inherit
8. How can multiple inheritance be achieved in Java?
- (a) Using multiple extends keywords
 - (b) Using interfaces
 - (c) Using abstract classes
 - (d) Using constructors

9. Which keyword is used to implement an interface in Java?
- (a) extends
 - (b) implements
 - (c) interface
 - (d) inherit
10. How can multiple inheritance be achieved in Java?
- (a) Using multiple extends keywords
 - (b) Using interfaces
 - (c) Using abstract classes
 - (d) Using constructors

PART B — (5 × 7 = 35 marks)

Answer ALL questions, choosing either (a) or (b).

11. (a) Discuss the Time and Space Complexity with examples.
- Or
- (b) Write the operations on Arrays and their implementation in Java.

12. (a) Describe Constants, Variables, and Data Types in Java.

Or

- (b) Write Java Operators and Expressions with examples.

13. (a) Detail the concept Classes and Objects in Java with an example.

Or

- (b) Discuss the Method Declaration and Implementation in Java.

14. (a) How multiple inheritance is achieved using interfaces in Java?

Or

- (b) Describe how to extend and implement interfaces in Java.

15. (a) Explain how multiple inheritance is achieved using interfaces in Java.

Or

- (b) Write about the types of JDBC drivers.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain Stack and its applications in detail with examples.

17. Write in detail the Decision Making and Branching in Java.

18. Detail about the Method Overloading. Explain with an example.

19. Describe the concept of Java Packages. How do you create and access packages?

20. Illustrate the Exception Handling in Java with examples.
-

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15. (அ) அண்ணாவின் சொற்பொழிவில் 'நல்ல தீர்ப்பன்' செய்திகளை ஆராய்ந்து எழுதுக.

(அல்லது)

- (ஆ) அப்துல் கலாமின் அக்னிச் சிறகுகள் காட்டும் செயற்கைக் கோள்களை பற்றிய கண்டுபிடிப்புகள் பற்றி விவரிக்க.

பகுதி இ — (3 × 10 = 30 மதிப்பெண்கள்)

எவையேனும் மூன்றனுக்கு மட்டும் விடையளி.

16. பாரதியாரின் சுயகதையில் வரும் கனவு செய்திகளை விளக்கு.
17. வைரமுத்துவின் “ஐந்து பெரிது ஆறு சிறிது” கவிதை உணர்த்தும் செய்திகளை விவரி.
18. “செல்லாத பணம்” குறித்து இமையம் அவர்கள் எவ்வாறெல்லாம் சுட்டிக் காட்டுகிறார் என விவரிக்க.
19. பம்மல் சம்பந்தனாரின் “சந்திர ஹரி” நாடகம் வாயிலாக அறியப்படும் கருத்துக்களை விவரிக்க.
20. ஏ.பி.ஜே அப்துல் கலாமின் அக்னிச் சிறகுகளில் போராட்டங்களும், இளைஞர்களுக்கு அவர் கற்றுக் கொடுத்த பாடங்களும், தீர்வுகளும் பற்றி விளக்கு.

62201/TTMPC11

APRIL 2026

இக்கால இலக்கியம்

Time : Three hours

Maximum : 75 marks

பகுதி அ — (10 × 1 = 10 மதிப்பெண்கள்)

சரியான விடையைத் தேர்ந்தெடுத்து எழுதுக.

1. “வயது முற்றிய பின்னும் வரும் காதலே மாசடைத்தது தெய்வீக மன்று” எனப் பாடியவர் யார்?
- (அ) பாரதியார் (ஆ) பாரதிதாசன்
(இ) மீரா (ஈ) மறைமலைஅடிகள்
2. அறிவிலே தெளிவு, நெஞ்சிலே என்ன வேண்டும்
- (அ) உறுதி (ஆ) புகழ்
(இ) செல்வம் (ஈ) கல்வி
3. பாரதிதாசனின் இயற் பெயர் என்ன?
- (அ) கனகசபை (ஆ) கனகசபாபதி
(இ) பாரதிதாசன் (ஈ) கனக சுப்புரத்தினம்
4. பாரதிதாசன் எழுதிய நூல் எது?
- (அ) கண்ணன்பாட்டு (ஆ) குயில்பாட்டு
(இ) புரட்சிக்கவி (ஈ) ஞானரதம்

5. கண்ணீர்ப் பூக்கள் என்ற நூலின் ஆசிரியர் யார்?
 (அ) பாரதியார் (ஆ) மு. மேத்தா
 (இ) பாரதிதாசன் (ஈ) அப்துல் ரகுமான்
6. தமிழில் சிறுகதையின் தந்தை என்ற புகழுக்கு உரியவர் யார்?
 (அ) சோ.தர்மன் (ஆ) நா. பிச்சமூர்த்தி
 (இ) ஜெயகாந்தன் (ஈ) புதுமைப்பித்தன்
7. மாவிந்த புராணம் கட்டுரையின் ஆசிரியர் யார்?
 (அ) உ.வே.சா (ஆ) நா. பிச்சமூர்த்தி
 (இ) புதுமைப்பித்தன் (ஈ) மீரா
8. திருப்பனந்தாள் காசி மடத்திற்கு உ.வே.சா எந்த வருடம் சென்றார்?
 (அ) 1947 (ஆ) 1937
 (இ) 1930 (ஈ) 1929
9. தனது அரண்மனை முன்னிலையிலே தூக்கிலிடப்பட்ட மன்னன் யார்?
 (அ) எட்வர்ட் (ஆ) சார்லஸ்
 (இ) எட்வின் (ஈ) ஹென்றி
10. 'அக்னிச் சிறகுகள்' என்ற நூலை படைத்தவர் யார்?
 (அ) ஜெயகாந்தன்
 (ஆ) ஏ.பி. ஜே அப்துல் கலாம்
 (இ) பிரபஞ்சன்
 (ஈ) புதுமைப்பித்தன்

பகுதி ஆ — (5 × 7 = 35 மதிப்பெண்கள்)

இரு பக்க அளவில் விடை தருக.

11. (அ) பாரதியாரின் கனவு எவ்வாறெல்லாம் அமைந்தது என விளக்கு.
 (அல்லது)
 (ஆ) பாரதிதாசனின் புரட்சிக்கவி உணர்த்தும் நொண்டிச் சிந்தனை விளக்கு.
12. (அ) மு. மேத்தாவின் கண்ணீர்ப் பூக்களில் வரும் மரங்கள் பற்றி விவரிக்க.
 (அல்லது)
 (ஆ) சிற்பியின் - மின் துளிர்கள் என்பவை என்ன? விளக்குக.
13. (அ) புதுமைப்பித்தனின் சாப விமோசனம் சிறுகதையினை விளக்கு.
 (அல்லது)
 (ஆ) சோ. தர்மனின் - சோகவனம் சிறுகதையில் அறியலாகும் செய்தியினை விவரி.
14. (அ) உ.வே. சாமிநாதையர் வாழ்க்கை வரலாறும், பணியினையும் விளக்கு.
 (அல்லது)
 (ஆ) பம்மல் சம்பந்தனாரின் வாழ்க்கை வரலாறும் நாடக எழுத்துப் பணியினையும் விளக்கு.

(6 pages)

62221/TENPC11**APRIL 2026****POETRY**

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 1 = 10 marks)

Answer the following questions.

Choose the correct answer :

1. How is the Doctor's knowledge in medicine described?
 - (a) Based on astrology and ancient texts
 - (b) Based on miracles and superstition
 - (c) Based on divine visions
 - (d) Learned from animals
2. What is ironic about the Friar's character?
 - (a) He is poor but doesn't beg
 - (b) He is friendly but avoids people
 - (c) He is religious but corrupt
 - (d) He is silent but always preaching
3. The poem Epithalamion is addressed to whom?
 - (a) The Queen
 - (b) The poet's muse
 - (c) Spenser's bride, Elizabeth Boyle
 - (d) The sun god, Apollo
4. What kind of love does Donne claim he and his beloved share?
 - (a) Lustful and passionate
 - (b) Public and dramatic
 - (c) Spiritual and refined
 - (d) Flawed and fading
5. What is Adam's initial reaction when he learns Eve has eaten the fruit?
 - (a) He curses her
 - (b) He runs away
 - (c) He calls for God
 - (d) He decides to eat it too
6. Which river does Marvell mention in the poem?

(a) Thames	(b) Amazon
(c) Ganges	(d) Nile

7. How is Achitophel portrayed in the poem?
- Loyal and selfless
 - Wise but misunderstood
 - Ambitious and cunning
 - Passive and weak
8. Who is the speaker in the poem addressing in "Ode on a Distant Prospect of Eton College"?
- His childhood friend
 - The students at Eton College
 - His parents
 - His future self
9. What poetic form is "The Soldier" written in?
- Ode
 - Ballad
 - Shakespearean Sonnet
 - Petrarchan Sonnet
10. What does the hawk symbolize in the poem?
- Peace and harmony in nature
 - The beauty of flight
 - Brutal authority and arrogance
 - The weakness of animals

SECTION B — (5 × 7 = 35 marks)

Answer the following questions.

11. (a) How does Chaucer present the Prioress in "The General Prologue"?

Or

- (b) What does the description of Doctor's knowledge, practices and love for gold reveal about the relationship between medicine, astrology and morality in the medieval period?

12. (a) Discuss how Donne uses metaphysical conceits in A Valediction: Forbidding Mourning.

Or

- (b) Explain how Donne blends the themes of love and religion in The Canonization.

13. (a) Analyze how Milton contrasts reason and passion in the characters' actions.

Or

- (b) Explain about Marlowe's To His Coy Mistress and how it reflects the theme of carpe diem.

14. (a) Examine Dryden's portrayal of Absalom's character in the lines 150-476 of Absalom and Achitophel.

Or

- (b) How does Gray use imagery and language to convey a sense of longing for the past?
15. (a) Explore the central theme of the poem "Do Not Go Gentle into That Good Night".

Or

- (b) How does Wilfred Owen use imagery to depict the brutal reality of war in "Anthem for Doomed Youth"?

SECTION C — (3 × 10 = 30 marks)

Answer any THREE of the following questions.

16. How does Chaucer use irony in the Pardoner's physical appearance and behavior to reveal his true character and the corruption within the Church?

17. Discuss the structure of Spenser's Epithalamion and explain how it reflects the stages of a wedding day.

18. Explore how Milton uses the events of Book IX to establish the tragic outcomes for both the human race and the natural world.

19. Discuss the relationship between Absalom and Achitophel in the passage from line 150-476.

20. Examine the theme of marriage in The Whitsun Weddings.

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17. Show that the topologies on $\mathbb{R}^n$ induced by the euclidean metric d and the square metric ρ are the same as the product topology on $\mathbb{R}^n$.
 18. If L is a linear continuum in the order topology, then prove that L is connected and so are intervals and rays in L .
 19. Let X be a metrizable space. Then prove that the following are equivalent:
 - (a) X is compact.
 - (b) X is limit point compact.
 - (c) X is sequentially compact.
 20. State and prove Urysohn lemma.
-

62619/EMTPC33

APRIL 2026

TOPOLOGY

Time : Three hours

Maximum : 75 marks

PART A — ($10 \times 2 = 20$ marks)

Answer ALL the questions.

Choose the correct answer :

1. Define standard topology.
2. State Hausdorff space.
3. Define metrizable and metric space.
4. Define homeomorphism with example.
5. Define path connected.
6. Give an example for path components which is open but not closed.
7. Give two examples for locally compact.
8. State Shrinking map.
9. Define orbit space.
10. Justify a subspace of a Lindelof space need not be Lindelof.

PART B — ($5 \times 5 = 25$ marks)

Answer ALL questions.

11. (a) Let Y be a subspace of X . Then prove that a set A is closed in Y if and only if it equals the intersection of a closed set of X with Y .

Or

- (b) Let X be a topological space. Suppose that $\mathcal{C}$ is a collection of open sets of X such that for each open set U of X and each x in U , there is an element C of $\mathcal{C}$ such that $x \in C \subset U$. Then prove that $\mathcal{C}$ is a basis for the topology of X .

12. (a) State and prove sequence lemma.

Or

- (b) State and prove Uniform limit theorem.

13. (a) If X is a topological space, each path component of X lies in a component of X . If X is a locally path connected, then prove that the components and the path components of X are the same.

Or

- (b) Prove that the components of X are connected disjoint subspaces of X whose union is X , such that each nonempty connected subspace of X intersects only one of them.

14. (a) State and prove extreme value theorem.

Or

- (b) Let Y be a subspace of X . Then prove that Y is compact if and only if every covering of Y by sets open in X contains a finite subcollection covering Y .

15. (a) Show that a subspace of a completely regular space is completely regular, and also prove that a product of completely regular spaces is completely regular.

Or

- (b) Show that every metrizable space is normal.

PART C — ($3 \times 10 = 30$ marks)

Answer any THREE questions

16. Let A be a subset of the topological space X .

- (a) Then show that $x \in \bar{A}$ if and only if every open set U containing x intersects A .
- (b) Supposing the topology of X is given by a basis, then show that $x \in \bar{A}$ if and only if every basis element B containing x intersects A .

(6 pages)

27.4.2026

62453/ECHPC33

APRIL 2026

CORE INDUSTRY MODULE – I

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 1 = 10 marks)

Answer ALL the questions.

Choose the correct answer :

1. The main constituent responsible for the strength of cement is:
(a) Lime (b) Silica
(c) Alumina (d) Iron oxide
2. High alumina cement is resistant to:
(a) Sulphate attack
(b) Acid attack
(c) Water
(d) Alkali attack

3. Organochlorine pesticides are derivatives of:
(a) Benzene
(b) Chlorinated hydrocarbons
(c) Alcohols
(d) Carboxylic acids
4. Urea contains nitrogen by weight about:
(a) 33% (b) 46%
(c) 55% (d) 62%
5. BIS stands for:
(a) Bureau of Indian Standards
(b) Biological Institute of Science
(c) Bio Industrial Standards
(d) Basic Industrial Standards
6. Ion-exchange method is mainly used for:
(a) Softening of water
(b) Disinfection
(c) Coagulation
(d) Sedimentation

7. The process of soaking plant material in solvent at room temperature is called:

- (a) Percolation
- (b) Maceration
- (c) Soxhlet extraction
- (d) Distillation

8. Supercritical fluid extraction often uses:

- (a) CO_2 (b) N_2
- (c) O_2 (d) H_2

9. Thermosetting plastics can be:

- (a) Remolded many times
- (b) Softened by heat
- (c) Cured permanently
- (d) Melted repeatedly

10. MFI stands for:

- (a) Melt Flow Index
- (b) Molecular Flow Indicator
- (c) Material Flow Information
- (d) Melt Factor Index

SECTION B – (5 × 7 = 35 marks)

Answer all the Following

11. (a) Explain the manufacturing process of Portland cement with a neat flow diagram.

Or

- (b) Explain in detail about the history of cement.

12. (a) Write notes on classification and examples of pesticides.

Or

- (b) Describe the manufacture and uses of triple super phosphate fertilizer.

13. (a) Explain various steps involved in water treatment process.

Or

- (b) Discuss different types of water pollutants and their effects.

14. (a) Explain the maceration and percolation methods of phytochemical extraction.

Or

- (b) Write short notes on applications of rejuvenating herbs in Indian medicine.
15. (a) Discuss injection molding and extrusion processes in detail.

Or

- (b) Explain any two testing methods of plastic materials as per IS standards.

SECTION C – (3 × 10 = 30 marks)

Answer any THREE of the following.

16. Explain in detail the raw materials and chemical reactions involved in the manufacture of cement.
17. Discuss the various nitrogenous fertilizers with their composition, manufacture, and action on plants.
18. Describe the process of wastewater treatment with emphasis on industrial and biological treatments.

19. Explain the modern extraction techniques used for obtaining phytochemicals and their advantages.

20. Discuss in detail the classification, properties, and applications of thermoplastic and thermosetting plastics.
-