



ADHYAN DEFENCE ACADEMY

Global Campus, Dindori road, Nashik , Maharashtra, Pin - 422004

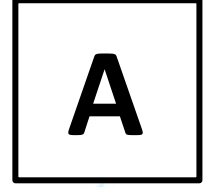
ADHYAN 100% SCHOLARSHIP EXAMINATION

Course : NDA

Date : 12/04/2026

Full Marks : 100

Duration : 75 Min.



INSTRUCTIONS

1. This test booklet contains **50** questions. Each question comprises four responses (answer). You will select the response which you want to mark on the Answer Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best, in any case, choose **ONLY ONE** response for each questions.
2. You have to mark all your responses **ONLY** on the separate Answer Sheet provided see directions in the Answer Sheet.
3. Each question carry **02 marks**.
4. Before you proceed to mark in the Answer Sheet the response to various question in the test Booklet, you have to fill in some particulars in the Answer Sheet as per instructions sent to you with your Admission Certificate.
5. After you have completed filling in all your responses on the Answer Sheet and the examination has concluded, you should hand over to the invigilator only the Answer Sheet. You are permitted to take away with you the Test Booklet.
6. **Penalty for wrong answers:**
THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY THE CANDIDATE IN THE OBJECTIVE TYPE QUESTION PEPERS.
 - (i) There are four alternative for the answer to every question. For each question for which a wrong answer has been given by the candidate, **one-third** of the marks assigned to that question will be deducted as penalty.
 - (ii) If a candidate gives more than one answer, it will be treated as a **wrong answer** even if one of the given answers happens to be correct and there will be same penalty as above to that question.
 - (iii) If a question is left blank, i.e., no answer is given by the candidate, there will be **no penalty** for that question.

DECLARATION BY STUDENT

I hereby read and understood that I have reviewed the instruction and guidelines for the exam paper. By accepting this, I agree to abide by the rules and regulations set for by the institution.

Student Name & Signature

1. Which among the following produce seeds.
 - (a) Thallophyta
 - (b) Bryophyta
 - (c) Pteridophyta
 - (d) Gymnosperms
2. Which sewage disposal method involves worms to degrade organic waste?
 - (a) Incineration
 - (b) Vermicomposting
 - (c) Landfill
 - (d) Recycling
3. Blood group known as universal recipient is
 - (a) A
 - (b) O
 - (c) AB
 - (d) B
4. The L.C.M. of two numbers is 1200. Which of the following cannot be their H.C.F.?
 - (a) 600
 - (b) 500
 - (c) 400
 - (d) 200
5. On dividing a polynomial $p(x)$ by a non-zero polynomial $q(x)$, let $g(x)$ be the quotient and $r(x)$ be the remainder, then $p(x) = q(x) \cdot g(x) + r(x)$, where
 - (a) $r(x) = 0$ always
 - (b) $\deg(r(x)) < \deg(g(x))$ always
 - (c) Either $r(x) = 0$ or $\deg(r(x)) < \deg(g(x))$
 - (d) $r(x) = g(x)$
6. If $2x - 3y = 7$ and $(a + b)x - (a + b - 3)y = 4a + b$ represent coincident lines, then a and b satisfy the equation
 - (a) $a + 5b = 0$
 - (b) $5a + b = 0$
 - (c) $a - 5b = 0$
 - (d) $5a - b = 0$
7. How many terms of the sequence 18, 16, 14, ... should be taken so that their sum is zero?
 - (a) 14
 - (b) 19
 - (c) 23
 - (d) 29
8. Find a natural number whose square diminished by 84 is equal to thrice of 8 more than the given number
 - (a) -3
 - (b) 12
 - (c) 6
 - (d) 9
9. The ratio in which x-axis divided the line joining the points $(-8,9)$ and $(2, -3)$ is
 - (a) 1: 3
 - (b) 4: 1
 - (c) 1: 4
 - (d) 3: 1
10. Three vertices of a parallelogram are $(3,8)$, $(9,8)$ and $(9,4)$, then the fourth vertex is
 - (a) $(-3,4)$
 - (b) $(3, -4)$
 - (c) $(3,4)$
 - (d) $(4,3)$
11. If a pole 6 m high casts a shadow $2\sqrt{3}m$ long on the ground, then sun's elevation is
 - (a) 60°
 - (b) 45°
 - (c) 30°
 - (d) 90°
12. If $\tan \theta + \cot \theta = 2$, then the value of $\tan^2 \theta + \cot^2 \theta$ is _____.
 - (a) 4
 - (b) 2
 - (c) $3/2$
 - (d) 5
13. Twelve solid spheres of the same size are made by melting a solid metallic cylinder of base diameter 2 cm and height 16 cm. The diameter of each sphere is
 - (a) 4 cm
 - (b) 3 cm
 - (c) 2 cm
 - (d) 6 cm
14. The perimeter of the sector with radius 14 cm and sector angle 45° is
 - (a) 32 cm
 - (b) 42 cm
 - (c) 39 cm

- (d) 47 cm
15. In the formula $\bar{x} = a + h \left(\frac{\sum f_i u_i}{\sum f_i} \right)$, for finding the mean of grouped frequency distribution, $u_i =$
- $\frac{x_i + a}{h}$
 - $h(x_i - a)$
 - $\frac{x_i - a}{h}$
 - $\frac{a - x_i}{h}$
16. A card is drawn from a pack of 52 cards. The probability of drawing a black face card is
- $\frac{2}{13}$
 - $\frac{3}{26}$
 - $\frac{1}{13}$
 - $\frac{3}{52}$
17. If $\sin \theta = \frac{2}{5}$, then the value of $\cos \theta$ is
- $\frac{1}{5}$
 - $\frac{4}{5}$
 - $\frac{2\sqrt{5}}{5}$
 - $\frac{\sqrt{21}}{5}$
18. $\operatorname{cosec} \theta$ is positive in
- II quadrant
 - III quadrant
 - IV quadrant
 - Both (a) and (c)
19. A body moves with constant speed in a circular path. Which statement is correct?
- Velocity is constant
 - Acceleration is zero
 - Direction of velocity changes continuously
 - Both velocity and acceleration are constant
20. Two objects of masses 2 kg and 4 kg are dropped from the same height. Neglect air resistance. Which hits the ground first?
- 2 kg
 - 4 kg
 - Both simultaneously
 - Cannot be determined
21. If force is doubled and area is halved, pressure becomes:
- Same
 - Double
 - Four times
 - Half
22. In a series circuit, if one resistor increases, total current:
- Increases
 - Decreases
 - Remains same
 - Becomes zero
23. A body has zero velocity but non-zero acceleration when:
- Moving uniformly
 - At highest point of motion
 - At rest permanently
 - Moving with constant speed
24. If resistance is doubled and voltage constant, current becomes:
- Double
 - Half
 - Same
 - Zero
25. A concave mirror forms an image three times the size of the object. The image can be:
- Only real
 - Only virtual
 - Real or virtual
 - Always inverted
26. Which one of the following metals occurs in nature in free state?
- Gold
 - Sodium
 - Aluminium
 - Copper
27. Which one among the following statements is not correct about graphite?
- It is the most stable allotrope of carbon
 - It is an electrically conducting material
 - Crystalline spherical beads of graphite have very good lubricating property under dry conditions
 - It is the higher grade of coal

28. Consider the following reaction :
- $$xAs_2S_3 + yO_2 \rightarrow zAs_2O_3 + wSO_2$$
- What is y (the coefficient of O_2) when the equation is balanced using whole number coefficients?
- (a) 5
(b) 7
(c) 9
(d) 11

29. Which are the most abundant elements in the universe?
- (a) Oxygen and Nitrogen
(b) Hydrogen and Oxygen
(c) Hydrogen and Helium
(d) Carbon and Nitrogen
30. Match List-I with List- II and select correct using the code given below the Lists

List - I		List - II	
A	Cement	1.	Sodium
B	Glass	2.	Carbon Black
C	Ink	3.	Silica in the form of quartz
D	Soap	4.	Aluminium and Silicates of calcium

Codes :

A	B	C	D
(a) 4	3	2	1
(b) 1	2	3	4
(c) 1	3	2	4
(d) 4	2	3	1

Part A: Synonyms (3 Questions)

Directions: Each item in this section consists of a sentence with an underlined word followed by four options. Select the option that is nearest in meaning to the underlined word.

31. The desert landscape was barren.
- (a) Fertile
(b) Desolate
(c) Lush
(d) Crowded
32. The child was obstinate and refused to eat his vegetables.
- (a) Flexible
(b) Obedient

- (c) Stubborn
(d) Happy

33. The lawyer made a compelling argument.
- (a) Weak
(b) Convincing
(c) Boring
(d) Short

Part B: Antonyms (3 Questions)

Directions: Each item in this section consists of a sentence with an underlined word followed by four options. Select the option that is opposite in meaning to the underlined word.

34. The museum has a collection of ancient artifacts.
- (a) Old (b) Antique
(c) Modern (d) Historic
35. His speech was very vague.
- (a) Unclear (b) Precise
(c) Hazy (d) Long
36. The company decided to expand its operations.
- (a) Grow (b) Increase
(c) Contract (d) Extend

Part C: Spotting Errors (2 Questions)

Directions: Each sentence is divided into three parts. One part of the sentence contains a grammatical error. Identify the part that has the error. If there is no error, choose (d).

37. I have seen (a) / him (b) / yesterday. (c) / No error (d)
38. The news (a) / are (b) / very surprising. (c) / No error (d)

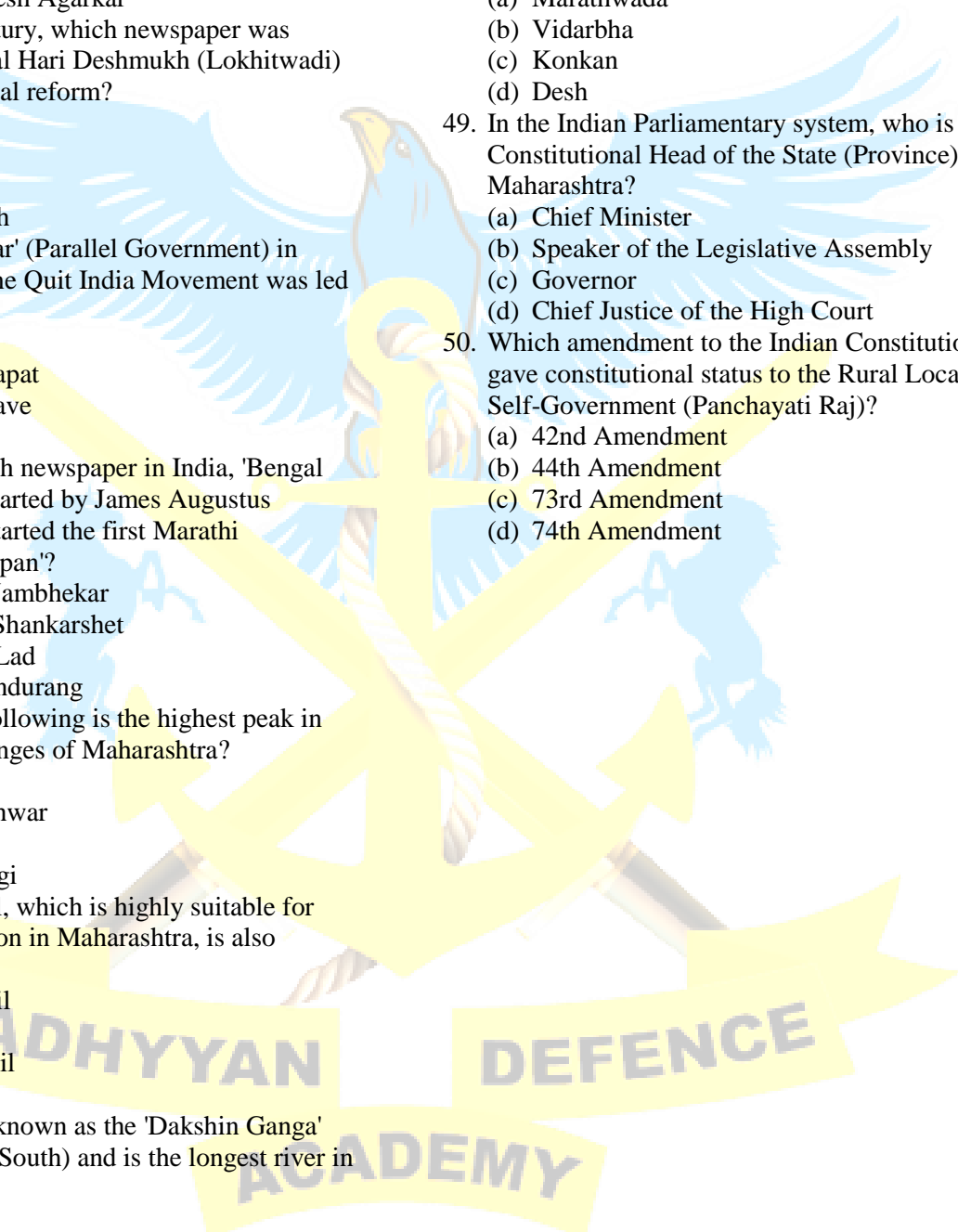
Part D: Cloze Test (2 Questions)

Directions: Read the passage and fill in the blanks with the most appropriate word from the options given below each blank.

Passage:

Nature provides us with everything we need for survival. It is our (39)..... to protect the environment from pollution. Planting more trees is a (40)..... step toward a greener planet.

39. (a) burden (b) responsibility
(c) choice (d) pastime
40. (a) useless (b) vital
(c) negative (d) small
41. Who is known as the 'Pioneer of the Satyashodhak Samaj' in Maharashtra?

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- (a) Dr. B.R. Ambedkar
(b) Mahatma Jyotirao Phule
(c) Justice Ranade
(d) Gopal Ganesh Agarkar
42. In the 19th century, which newspaper was started by Gopal Hari Deshmukh (Lokhitwadi) to promote social reform?
(a) Kesari
(b) Darpan
(c) Prabhakar
(d) Induprakash
43. The 'Prati Sarkar' (Parallel Government) in Satara during the Quit India Movement was led by:
(a) Nana Patil
(b) Senapati Bapat
(c) Vinoba Bhave
(d) S.M. Joshi
44. The first English newspaper in India, 'Bengal Gazette', was started by James Augustus Hickey. Who started the first Marathi newspaper 'Darpan'?
(a) Balshastri Jambhekar
(b) Jagannath Shankarshet
(c) Bhau Daji Lad
(d) Dadoba Pandurang
45. Which of the following is the highest peak in the Sahyadri ranges of Maharashtra?
(a) Salher
(b) Mahabaleshwar
(c) Kalsubai
(d) Saptashrungi
46. The 'Regur' soil, which is highly suitable for cotton cultivation in Maharashtra, is also known as:
(a) Laterite Soil
(b) Black Soil
(c) Alluvial Soil
(d) Red Soil
47. Which river is known as the 'Dakshin Ganga' (Ganges of the South) and is the longest river in Maharashtra?
(a) Krishna
(b) Koyna
(c) Godavari
(d) Tapi
48. According to the physiography of Maharashtra, the area between the Arabian Sea and the Sahyadri Mountains is known as:
(a) Marathwada
(b) Vidarbha
(c) Konkan
(d) Desh
49. In the Indian Parliamentary system, who is the Constitutional Head of the State (Province) like Maharashtra?
(a) Chief Minister
(b) Speaker of the Legislative Assembly
(c) Governor
(d) Chief Justice of the High Court
50. Which amendment to the Indian Constitution gave constitutional status to the Rural Local Self-Government (Panchayati Raj)?
(a) 42nd Amendment
(b) 44th Amendment
(c) 73rd Amendment
(d) 74th Amendment