8th All India RPS OLYMPIAD

Online & Offline Mega Event

QUESTION PAPER (PHASE – I)

CLASS - VIII

ENGLISH (10 Marks)

Q1. I saw _____ ugly boy yesterday in the market.

(A) a (B) an (C) the (D) no article

Q2. A _____ of girls was present to serve the helpless.

(A) gaggle (B) crowd (C) team (D) bevy

Q3. While Abhay _____ on the bed, a snake bit him.

(A) sleeping (B) slept (C) was sleeping (D) had slept

Q4. The mad dog bit the beggar.

(A) The beggar was bit by the mad dog.

(B) The beggar was bitten by the mad dog.

(C) The beggar was bitten by mad dog.

(D) The beggar is bitten by the mad dog.

Q5._____ you, please, post this letter?

(A) Could (B) Might (C) Should (D) Shall

Q6. _____ of these two girls is active.

(A) Both (B) Every (C) Neither (D) None of these

Q7. Which of the following sentences correctly uses a colon to introduce a list?

(A) For the recipe, you will need: flour, sugar, and butter.

(B) She packed her favorite books, including: mystery novels, biographies, and essays.

(C) He packed three essential items for the hike: a heavy jacket, a compass, and sturdy boots.

(D) The ingredients are: eggs, flour, and milk which make up the batter.

Q8. What does the word "abundant" mean?

(A) extremely loud or noisy (B) very scarce or rare

(C) existing in large quantities; plentiful (D) hidden or secret

Q9. What is the antonym of "transparent"?

(A) clear (B) bright (C) smooth (D) opaque

Q10. The train _____ before we reached the platform.

(A) had left (B) left (C) has left (D) was leaving

MATHS (10 Marks)

Q11. What is the length of side of a cube whose volume is 9261 cm^3?

(A) 19 cm (B) 21 cm (C) 31 cm (D) 29 cm

Q12. The sum of any three consecutive odd integers is always divisible by which of the following numbers?

(A) 4 (B) 6 (C) 2 (D) 3

Q13. Simplify the expression: $(x+y)^2-(x-y)^2$.

(A) $2x^2+2y^2$ (B) x^2-y^2 (C) 2xy (D) 4xy

Q14. What will be value of x if $(9)^3 \times (81)^2 \div (27)^3 = 3^x$

(A) 3 (B) 5 (C) 4 (D) 6

Q15. If a and b are both odd numbers then which of the following is an even number?

(A) a+b (B) a+b+1 (C) ab (D) ab+2

Q16. A number has a digital root 7. What will be digital root of the number obtained by adding 18 to it?

(A) 5 (B) 7 (C) 9 (D) 6

Q17. Which of the following is a Pythagorean triplet?

(A) 5, 6, 11 (B) 7, 9, 15 (C) 8, 12, 19 (D) 5, 12, 13

Q18. If a+b=12 and ab=32, then the value of a^2+b^2 is

(A) 80 (B) 112 (C) 144 (D) 176

Q19. In a parallelogram, two adjacent angles are $(3x+10)^0$ and $(2x+20)^0$. Find x.

(A) 20 (B) 25 (C) 30 (D) 35

Q20. If $2^a = 8$ and $3^b = 81$ then what will be value of a+b?

(A) 5 (B) 6 (C) 7 (D) 8

SCIENCE (10 Marks)

Q21. Find the total pressure exerted at a depth of 10m below the surface of water in a column open to atmosphere. (Take g=9.8 m/s^2)

(A) 0.98×10^5 pa (B) 1.01×10^5 pa (C) 1.99×10^5 pa (D) 3.00×10^5 pa

Q22. A wooden block is dragged on a rough floor. If the block is placed on its larger face so that the contact area doubles while the weight remains the same, the frictional force will:

(A) Double (B) remain the same

(C) reduce to half (D) increase slightly

Q23. 10V battery is connected across a 500Ω resistor made of alloy manganin. How much heat energy is produced in the resistor in 1 hour?

(A) 720J (B) 360J (C) 72J (D) 1800J

Q24. Which statement about particles of matter is correct?

(A) They have no spaces between them.

(B) They are continuously moving.

(C) They cannot attract one another.

(D) They are visible individually to the naked eyes.

Q25. Which method is most suitable for separating dyes in black ink?

(A) Filtration (B) Chromatography

(C) Sublimation (D) Magnetic separation

Q26. What happens to the volume of a fixed mass of pure water when it freezes into ordinary ice?

(A) It decreases (B) It remains exactly the same

(C) It increases (D) It becomes zero

Q27. Which statement about photosynthetic microorganisms is correct?

(A) Every microorganism containing chlorophyll must be a eukaryote.

(B) All photosynthetic bacteria possess chloroplasts.

(C) Euglena and cyanobacteria both perform photosynthesis, but only Euglena possesses membrane-bound organelles.

(D) All bacteria are unable to release oxygen during photosynthesis.

Q28. Assertion (A): All protozoans are not necessarily harmful to humans, although some cause serious diseases.

Reason (R): Amoeba moves and captures food using pseudopodia, whereas Plasmodium is a parasitic protozoan that causes malaria.

Choose the correct option:

(A) Both Assertion (A) and Reason (R) are true, and Reason (R) correctly explains Assertion (A).

(B) Both Assertion (A) and Reason (R) are true, but Reason (R) does not correctly explain Assertion (A).

(C) Assertion (A) is true, but Reason (R) is false.

(D) Assertion (A) is false, but Reason (R) is true.

Q29. Which of the following statements is correct?

(A) Mitochondria synthesise proteins, while ribosomes release energy through cellular respiration.

(B) The Golgi apparatus modifies and packages substances, while ribosomes synthesise proteins.

(C) Chloroplasts control all cellular activities, while the nucleus performs photosynthesis.

(D) The cell wall selectively controls the movement of substances, while the cell membrane provides rigidity to plant cells.

Q30. Which of these options are not a function of Ribosomes?

(i) It helps in manufacture of protein molecules

(ii) It helps in manufacture of enzymes

(iii) It helps in manufacture of fats

(iv) It helps in manufacture of starch molecules

(A) (i) and (ii) (B) (ii) and (iii) (C) (iii) and (iv) (D) (iv) and (i)

APTITUDE (10 Marks)

Q31.The last day of Century can't be _____.

(A) Monday (B) Wednesday (C) Tuesday (D) Friday

Q32. The rotation undergone by the minute hand of a clock as it traverses a distance of 255 minutes is _____.

(A) 810˚ (B) 1530˚ (C) 450˚ (D) 90˚

Q33. When was Wednesday in the month of April 2024?

(A) 24th April 2024 (B) 23rd April 2024

(C) 21st April 2024 (D) 22nd April 2024

Q34. In the following question, which one of the four interchanges in signs and number would make the given equation correct?

6×4+2=16

(A) + and ×, 2 and 4 (B) + and ×, 2 and 6

(C) + and ×, 4 and 6 (D) none of these

Q35. In a certain code language, if 44×44=4444 and 34×52=5423, then find the value of 81×46 in the same code language.

(A) 1648 (B) 8461 (C) 8164 (D) 4168

Q36. If REQUEST is written as S2R52TU, then how will ACID be written?

(A) 1394 (B) 1C9E (C) BDJE (D) None of these

Q37. Mohan walked 40 metres towards North, took a left turn and walked 20 metres. He again took a left turn and walked 40 metres. How far and in which direction is he from the starting point?

(A) 20 metres East (B) 20 metres North (C) 20 metres South (D) none of these

Q38. Find the missing term:

1, 6, 36, 240, 1960, ?

(A) 19600 (B) 19660 (C) 36800 (D) 19666

Q39. Ram started walking positioning his back towards the Sun. After sometime, he turned left then turned right and then towards the left again. In which direction is he going now?

(A) North or South (B) East or West

(C) North or West (D) South or West

Q40. Seismology is to Earthquake as Entomology is to _____.

(A) Insects (B) Blood (C) Soil (D) Heart

SOCIAL STUDIES (10 Marks)

Q41. Which dam is located in Tamil Nadu on the bank of the River Kaveri?

(A) Bhakra Nangal Dam (B) Mettur Dam

(C) Hirakud Dam (D) Tehri Dam

Q42. Which state was the main centre of the Green Revolution in India?

(A) Rajasthan (B) Bihar (C) Punjab (D) Odisha

Q43. Which European power was the first to establish a strong maritime presence in India?

(A) British (B) French (C) Dutch (D) Portuguese

Q44. What is meant by the "drain of wealth" during British rule in India?

(A) The movement of rivers towards the sea. (B) The transfer of India's wealth to Britain.

(C) The growth of Indian handicrafts. (D) The increase in agricultural production.

Q45. What does NOTA stand for in the Indian electoral system?

(A) National option to apply (B) National order to approve

(C) Notice of the Assembly (D) None of the above

Q46. In which year were the first Lok Sabha general elections held in India?

(A) 1947-1948 (B) 1950-1951 (C) 1951-1952 (D) 1955-1956

Q47. Who presides over the proceedings of the Lok Sabha?

(A) President (B) Prime Minister (C) Vice-President (D) Speaker

Q48. Which organ of the Indian Government acts as the custodian of the Constitution?

(A) The Legislature (B) The Executive

(C) The Judiciary (D) The Election Commission

Q49. Which ancient text contains detailed design guidelines for sculpture, painting, Building and jewellery?

(A) Arthashastra (B) Rigveda (C) Manusmriti (D) Shilpashastra

Q50. What is the main role of an entrepreneur in production?

(A) To consume all the products

(B) To organize resources and take business risks

(C) To provide only natural resources

(D) To work only as a labourer

HINDI (10 Marks)

Q51. 'जलोर्मि' शब्द में कौन–सी संधि है?

(A) वृद्धि संधि (B) गुण संधि (C) दीर्घ संधि (D) अयादि संधि

Q52. मेले में बहुत भीड़ थी। रेखांकित पद में संज्ञा का भेद चुनिए–

(A) व्यक्तिवाचक (B) द्रव्यवाचक (C) समूहवाचक (D) भाववाचक

Q53. 'हमें', 'तुम्हें', 'वह' किस सर्वनाम के भेद हैं?

(A) पुरुषवाचक (B) संबंधवाचक (C) अनिश्चयवाचक (D) निश्चयवाचक

Q54. कक्षा में तीस विद्यार्थी उपस्थित हैं। रेखांकित पद में विशेषण का कौन–सा भेद है?

(A) परिमाणवाचक (B) संख्यावाचक (C) गुणवाचक (D) इनमें से कोई नहीं

Q55. मुझे गहरा काला रंग पसंद है। वाक्य में प्रविशेषण पद चुनिए–

(A) काला (B) पसंद (C) मुझे (D) गहरा

Q56. कालिदास ने मेघदूत की रचना की थी। वाक्य में काल का कौन–सा भेद है?

(A) पूर्ण भूतकाल (B) अपूर्ण भूतकाल (C) अपूर्ण वर्तमानकाल (D) सामान्य भूतकाल

Q57. काल के कितने भेद होते हैं?

(A) चार (B) छह (C) पाँच (D) तीन

Q58. 'काली घटा का घमंड घटा' पंक्ति में कौन–सा अलंकार है?

(A) श्लेष अलंकार (B) यमक अलंकार (C) उपमा अलंकार (D) रूपक अलंकार

Q59. निम्नलिखित में से अर्थालंकार का भेद नहीं है -

(A) मानवीकरण (B) उत्प्रेक्षा (C) अनुप्रास (D) उपमा

Q60. 'आशीर्वाद' शब्द का सही संधि–विच्छेद छाँटिए–

(A) आशीः+र्वाद (B) आशी+वाद (C) आ+र्वाद (D) आशीः+वाद