ALL KERALA BHAVAN'S SCHOLARSHIP EXAMINATION 2017-2018

Class :X

Duration:1 ½ Hrs

Max Marks: 100
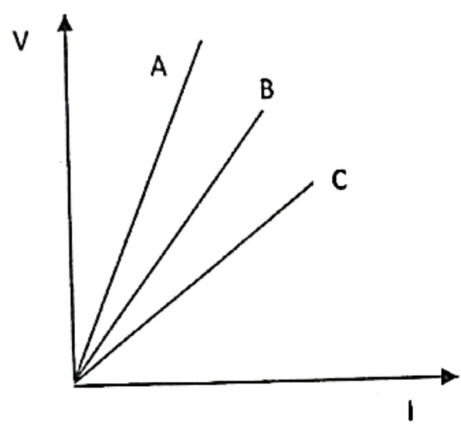
GENERAL INSTRUCTIONS

READ THE INSTRUCTIONS CAREFULLY BEFORE ANSWERING THE QUESTIONS

1. Please fill up your Roll No. and class in the box provided on the answer sheet.

2. This question booklet contains 50 questions and 5 Tie Breaker questions. All questions including Tie Breaker are compulsory. Tie Breaker questions would be evaluated only in case of a tie.

3. Each question has 4 options a, b, c, d.

4. For each question, select the best/correct option and darken the bubble completely against the corresponding question in the answer sheet provided.

5. Each question carries 2 marks.

6. Use blue/black ball pen/pencil to darken the bubble.

7. Darken only one bubble against each question.

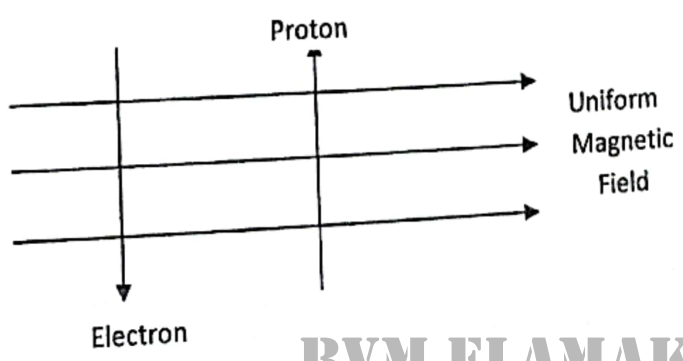8. There will be no negative marking.

Complete the sentences using the correct word.

1. We are sorry _____ your misfortune.'

    a) about   b for   c) at   d) with

2. He has many _____ from his trips all over the world.

    a) souveners   b) sovenirs   c) souvenirs   d) souvanirs

3. We _____ them since Thursday.

    a) have expected   b) have been expecting   c) expect   d) are expecting

4. Can any one stop a man from doing a thing, if he is really keen _____ it.

    a) in   b) on   c) for   d) at

5. Which of the following is an adjective formed from the word ' passion'

    a) passionism   b) passionately   c) passionate   d) passionful

6. His work seems to be <u>a Penelope's web.</u> Choose the alternative which best suits the underlined.

    a) difficult   b) endless   c) declining   d) in his best form

7. Choose the correct sentence .

    a) There are many large shops in Oxford street .

    b) There are many large shops in a Oxford street .

    c) There are many large shops in an Oxford street .

    d) There are many large shops in the Oxford street .

8. If α and β are the zeroes of the polynomial $f(x) = x^2 - p(x+1) - c$ such that $(\alpha +1)(\beta +1)=0$, then c equal to

    a) 1   b) 0   c) -1   d) 2

9. The area of the triangle formed by the coordinate axes and the line $\frac{x}{a} + \frac{y}{b} = 1$ is

    a) ab   b) $\frac{1}{2}$ ab   c) a +b   d) 2ab

10. The quadratic equation whose one of the root is $3+ \sqrt{5}$ is

    a) $x^2 - 6x +4$ b) $x^2 - 6x - 4$ c) $x^2 +6x+4$ d) $x^2 +6x +5$

11. If the sum of first n even natural numbers is equal to k times the sum of first n odd natural numbers then k equal to

    a) $\frac{1}{n}$ b) $\frac{n-1}{n}$ c) $\frac{n+1}{2n}$ d) $\frac{n+1}{n}$

12. If the two towers of height h_1 and h_2 subtend angles of 60^0 and 30^0 respectively at the mid point of the line joining their feet ,then $h_1 : h_2$ is

    a) 3:1   b) $\sqrt{3}$:1   c) $1:\sqrt{3}$ d) 1:3

13. If $\sec\theta + \tan\theta = k$, then $\cos\theta =$

a) $\dfrac{k^2+1}{2k}$ b) $\dfrac{2k}{k^2+1}$ c) $\dfrac{k}{k^2+1}$ d) $\dfrac{k}{k^2-1}$

14. The least number that is divisible by all the numbers from 1 to 10 is

a) 10 b)100 c) 5040 d) 2520

15. The perimeters of two similar triangles ABC and PQR are 60cm and 36 cm respectively. If PQ =9cm, then AB equal to

a) 6 b)10 c)15 d) 24

16. If the points (0,0), (1,2) and (x, y) are collinear ,then

a) $x = y$ b) $2x = y$ c) $x = 2y$ d) $2x = -y$

17. Ohm's law experiment is performed separately with individual resistors R_1, R_2 ($R_1 \square R_2$) and series combination of R_1, R_2. Graph is plotted between potential difference(V) and current (I) as shown in figure for each case. Identify, which one is for R_1, R_2 and combination of resistors. In the graph A, B and C respectively represents

a) R_1, R_2 and series combination

b) series combination, R_2, R_1

c) R_2, R_1 and series combination

d) series combination, R_1, R_2

18. A uniform magnetic field exists in the plane of paper pointing from left to right as shown in figure. In the field, an electron and a proton move as shown:

The electron and proton experience

    a) forces , both pointing into the plane of paper

    b) forces , both pointing out of the plane of paper

    c) forces, pointing into the plane of paper and out of the plane of paper respectively

    d) forces, pointing opposite and along the direction of the uniform magnetic field respectively

19. A student carries out the experiment of tracing the path of a ray of light through a rectangular glass slab, for two different values of angle of incidence $\angle i = 30°$ and $\angle i = 45°$. The set of values of the angle of refraction ($\angle r$) and angle of emergence ($\angle e$) , she is likely to observe in the two cases are

    a) $[\angle r = 30°, \angle e = 20°]$ and $[\angle r = 45°, \angle e = 28°]$

    b) $[\angle r = 20°, \angle e = 30°]$ and $[\angle r = 45°, \angle e = 28°]$

    c) $[\angle r = 20°, \angle e = 30°]$ and $[\angle r = 28°, \angle e = 45°]$

    d) $[\angle r = 30°, \angle e = 20°]$ and $[\angle r = 28°, \angle e = 45°]$

20. Pollen tube at the time of entering into ovule has

    a) one male gamete   b) two male gametes

    c) three male gametes   d) four male gametes

21. The plant hormone Gibberellin was first discovered from

    a) Algae   b) Fungi

    c) Bacteria   d) Roots of higher plants

22. From the following, select the character which can be acquired but not inherited?

    a) Colour of eye   b) Colour of skin

    c) Size of body   d) Nature of hair

23. Which of the following is not a thermal decomposition reaction?

    a) $2 H_2O \longrightarrow 2H_2 + O_2$

    b) $2 FeSO_4 \longrightarrow Fe_2O_3 + SO_2 + SO_3$

    c) $ZnCO_3 \longrightarrow ZnO + CO_2$

    d) $2 KClO_3 \longrightarrow 2 KCl + 3 O_2$

24. The pH of NH_4Cl solution will be

    a) 7   b) ☐ 7

    c) ☐ 7   d) 0

25. Beakers A, B and C contain zinc sulphate, silver nitrate and iron sulphate solutions respectively. Copper pieces are added to each beaker. Blue colour will appear in case of

    a) Beaker A   b) Beaker B

    c) Beaker C   d) All beakers

26. The FICCI was formed in the year

    a) 1920   b) 1922   c) 1927   d) 1929

27. Which great Indian painter painted the picture of 'Bharat Mata' in the year 1905?

    a) Raja Ravi Varma   b) Abanindranath Tagore

    c) Rabindranath Tagore   d) Bankim Chandra Chattopadyay

28. In which Congress session was the Non Co-operation Movement adopted?

    a) Nagpur session 1920   b) Calcutta session 1920

    c) Amritsar session 1919   d) Ahmadabad session 1921

29. Which movement was also known as 'Blood-less revolution'?

    a) Bhoodan movement   b) Chipko movement

    c) Tehri dam movement   d) Narmada movement

30. In which state are the Bailadila mines situated?

    a) Madhya Pradesh   b) Chhattisgarh   c)Odisia   d) Maharashtra

31. In which country was 'Grameen Bank' set up by Prof. Mohammad. Yunus?

    a) India   b) Bangladesh   c) Nepal   d) Pakistan

32. Removing barriers or restrictions set up by government is known as

    a) Globalization   b) Liberalization   c) Free market   d) Demonetization

33 Who among the following is the founder of Bahujan Samaj Party?

    a) Kanshi Ram   b) Sahu Maharaj   c) B.R. Ambedkar   d) Mayavati

34. When we speak of gender division we usually refer to

    a) Biological difference between men and women

    b) Unequal role assigned by society to men and women

    c) Unequal sex ratio

    d) Absence of voting rights for women

35. The first woman Prime Minister in the world was

    a) Indira Gandhi   b)Srimavo Bandaranaike

    c) Golda Meir   d)Elisabeth Domitien

36. UN Day is observed on:

    a) Sep 16   b) Oct 24   c) Nov 16   d) Nov 24.

37. Who is the present Defence Minister of India?

    a) Smriti Zubi Irani   b) Alphons Kannanthanam

    c) Nirmala Sitharaman   d) Harsh Vardhan

38. Who among the following is the author of the book 'The Audacity of Hope'?

    a) Barack Obama   b) Al Gore   c) Bill Clinton   d)Hillary Clinton

39. Who has won the 2017 Australian open (tennis) men's singles title?
    a) Rafel Nadal
    b) Matin Cilic
    c) Novak Djokovic
    d) Roger Federer

40. What is the full form of GST?
    a) Growing Stronger Together
    b) Goods and Services Tax
    c) Growing Special Tax
    d) Goods and Special Tax

41. Which film wins the Best Film award in 2017 Oscar?
    a) Arrival   b) La La Land   c) Moonlight   d) Lion

42. Name the Asian country which is not a member of SAARC?
    a)Bangladesh   b)Nepal   c) Myanmar   d)Pakistan

43. Which internet web portal changed its name to Altaba Inc?
    a) Google   b) Yahoo   c) MSN   d) Twitter

44. At a conference, 12 members shook hands with each other before & after the meeting. How many total number of handshakes occurred?

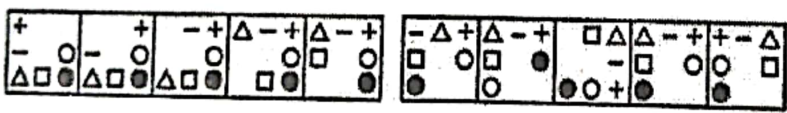   a)100   b)132   c)145   d)144

45. The day after the day after tomorrow is four days before Monday. What day is it today?

    a).Monday   b) Tuesday   c) Wednesday   d) Thursday

46. Forest is to tree as tree is to ?

    a) plant   b) leaf   c) branch   d) mangrove

47. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.

Problem Figures: Answer Figures:

(A)   (B)   (C)   (D)   (E)   (1)   (2)   (3)   (4)   (5)

    a) 1   b) 2   c) 3   d) 4

48. Look at this series: 0, 6, 24, 60,120,210…..What number should come next?

    a) 290   b) 240   c) 336   d) 504

49. Which word does NOT belong with the others
    a) Lung   b) Heart   c) Ear   d) Kidney

50. FAG, GAF, HAI, IAH,_____
    a) JAK   b) HAL   c) HAK   d) JAI

TIE BREAKER QUESTIONS

1. pH of two solutions A and B are 3 and 6 respectively. This means that
   a) solution A is twice as acidic as B
   b) solution B is twice as acidic as B
   c) solution A is 1000 times more acidic than B
   d) solution B is 1000 times more acidic than A

2. " Keibul Lanjao" worlds only floating national park is located in which state ?
   a)Assam   b) Tripura   c) Manipur   d) Arunachal Pradesh

3. In an equilateral triangle ABC if AD BC ,then
   a) $5AB^2 =4AD^2$ b) $3AB^2 =4AD^2$ c) $4AB^2 =3AD^2$ d)$2AB^2 =3AD^2$

4. Which European country declared May 26 as "Science day" in honour of
   A P J Abdul Kalam, following his visit to the country 2005?
   a)Algeria   b) Switzerland   c) Finland   d) San Marino

5. Under which act were the plantation workers not permitted to leave tea gardens?
   a) Rowlett act.1919
   b) Inland Emigration Act,1859
   c) Proclamation Act.1858
   d) Indian Forest Act ,1927

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