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RRB NTPC

TEST SERIES

DATE- __/__/__

DAY- _____

INSTRUCTION FOR CANDIDATE

TEST SERIES NO.

SG Set 24

QUESTION- 100

MARKS- 100

NEGATIVE MARK- 1/3

DURATION- 90 MIN.

1. USE ONLY BALL PENS WITH BLACK OR BLUE INK
2. AS SOON AS THE EXAMINATION STARTS, YOU MUST CHECK THIS QUESTION BOOKLET AND IF THERE IS ANY UNPRINTED, MUTILATED OR PARTIALLY PRINTED PAGE OR QUESTION IN IT, THEN REPLACE IT WITH THE CORRECT QUESTION BOOKLET THROUGH THE EXAMINER.
3. THERE ARE A TOTAL OF 100 QUESTIONS IN THIS QUESTION BOOKLET.
4. THIS IS AN OBJECTIVE TEST, IN WHICH FOUR OPTIONS ARE GIVEN FOR THE ANSWER TO EACH QUESTION, YOU HAVE TO CHOOSE ONLY ONE OPTION WITH THE CORRECT ANSWER OUT OF THESE FOUR OPTIONS.
5. ANSWERS TO ALL QUESTIONS ARE TO BE WRITTEN ON SEPARATE ANSWER SHEETS.

6. INSTRUCTIONS FOR FILLING THE ANSWER SHEET ARE WRITTEN ON THE BACK SIDE OF THE ANSWER SHEET, READ THEM CAREFULLY BEFORE FILLING THE ANSWER SHEET.
7. BLANK PAGES ARE AVAILABLE IN THIS QUESTION BOOKLET FOR ROUGH WORK.
8. CANDIDATES CANNOT LEAVE THE ROOM BEFORE THE END OF THE EXAMINATION.
9. AFTER THE EXAMINATION IS OVER, YOU CAN GO OUT ONLY WITH HIS PERMISSION AFTER SUBMITTING THE ORIGINAL COPY OF THE ANSWER SHEET TO THE INVIGILATOR.
10. AFTER THE COMPLETION OF THE EXAMINATION, THE CANDIDATE IS ALLOWED TO TAKE THE QUESTION BOOKLET AND ANSWER SHEET WITH HIM/HER.
11. 1 MARKS WILL BE GIVEN FOR EACH CORRECT ANSWER AND 1/3 MARKS WILL BE DEDUCTED FOR EACH WRONG ANSWER.



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Total: 100 Que.

RRB NTPC Set 24

Time: 90 Min.

RRB NTPC CBT I

1). If $x - \frac{2}{x} = 15$, then what is the value of $\left(x^2 + \frac{4}{x^2}\right)$?

- (a) 223 (b) 227 (c) 229 (d) 221

- 2). The data given in the table shows the number of boys and girls enrolled in three different streams in a school over 5 years.

Years	ARTS		SCIENCE		COMMERCE	
	Boys	Girls	Boys	Girls	Boys	Girls
2012	48	36	40	35	35	45
2014	42	43	42	32	32	42
2016	45	42	38	30	36	38
2018	39	46	41	23	28	34
2020	36	43	39	30	39	41

What is the ratio of the total number of boys in the year 2014 to the total number of girls in the year 2020?

- (a) 58:57 (b) 58:53 (c) 1:1 (d) 55:57

- 3). Avinash has 20% less coins of different countries than Gaurav has. Gaurav has 40% more such coins than Chetan has. By what percent the number of coins which Chetan has is less number of coins which Avinash has? (correct to one decimal place)

- (a) 12 (b) 10.5 (c) 10.7 (d) 10.6

- 4). What is the product of the average of first ten positive odd numbers and the average of first fifteen positive even numbers?

- (a) 44 (b) 150 (c) 85.25 (d) 160

- 5). Trader A gives a single discount of 25% and Trader B gives two successive discounts of 20% and 5% on a identical item. If the discount given by A is Rs.320 more than discount given by B, then what is the marked price (in Rs.) of the item?

- (a) 25000 (b) 32000 (c) 30000 (d) 3200

- 6). A man walking at a speed of 3km/h crosses a square field diagonally in 5 minutes. What is the area of field (m²)?

- (a) 31250 (b) 312.5 (c) 3125 (d) 3.125

- 7). Places A and B are 45 km apart from each other. A car starts from place A and another car starts from place B at the same time. If they move in same direction, they meet in 4 and a half hour and if they move towards each other, they meet in 27 minutes. What is the speed (in km/h) of the car which move faster?

- (a) 56 (b) 50 (c) 45 (d) 55

- 8). Atul borrowed a sum of ₹12000 and agreed to repay it by paying ₹4800 at the end of first year and ₹9240 at the end of second year. What is the rate of compound interest compounded annually?

- (a) 12% (b) $\frac{8}{5}\%$ (c) 10% (d) 8%

- 9). Simplify the following expression.

$$\frac{5(a^6 - b^6)^3 + 5(b^6 - c^6)^3 + 5(c^6 - a^6)^3}{2(a^3 - b^3)^3 + 2(b^3 - c^3)^3 + 2(c^3 - a^3)^3}$$

(a) $\frac{5}{2}(a^3 - b^3)(b^3 - c^3)(c^3 + a^3)$

(b) $\frac{5}{2}(a^3 + b^3)(b^3 - c^3)(c^3 - a^3)$

(c) $\frac{5}{2}(a^3 + b^3)(b^3 + c^3)(c^3 + a^3)$

(d) $\frac{5}{2}(a^3 - b^3)(b^3 + c^3)(c^3 + a^3)$

- 10). Points A, B and C are on a circle with centre O such that $\angle BOC = 84^\circ$. If AC is produced to a point D such that $\angle BDC = 40^\circ$, then find the measure of $\angle ABD$ (in degrees).

- (a) 92 (b) 56 (c) 98 (d) 102

- 11). Eighteen men can complete a work in 14 days. Three women do as much work as two men. Five men and six women started the work

and continued for 4 days. Subsequently 3 more men joined the group. In how many total days was the work completed?

- (a) $21\frac{1}{3}$ (b) 18 (c) 22 (d) $17\frac{1}{3}$

12). Monthly salaries of Anil and Kumud are in the ratio 19 : 17. If Anil and Kumud get salary hike of Rs.2000 and Rs.1000 respectively, then the ratio in their salaries becomes 8 : 7. What is the present salary of Kumud (in Rs.)?

- (a) 18000 (b) 35000 (c) 38000 (d) 34000

13). A shopkeeper sold an article at four-fifth of the marked price and suffered a loss of $3\frac{1}{3}\%$.

Find the profit percent, if he sold the article at the marked price. (correct to nearest integer)

- (a) 20 (b) 18 (c) 22 (d) 21

14). Points M and N are on the sides PQ and QR respectively of a triangle PQR, right angled at Q. If PN = 9 cm, MR = 7 cm, and MN = 3 cm, then find the length of PR (in cm).

- (a) 12 (b) $\sqrt{14}$ (c) 11 (d) 13

15). In a circle with centre O, AB is a chord of length 10 cm. Tangents at points A and B intersect outside the circle at P. If OP = 2 OA, then find the length (in cm) of AP.

- (a) 10 (b) 15 (c) 12 (d) 12.5

16). Sumit and Puneet can complete the same work in 10 days and 15 days respectively. The work was assigned for Rs.4500. After working together for 3 days Samir and Puneet involved Ashok. The work was completed in total in 5 days. What amount (in Rs.) was paid to Ashok?

- (a) 1071 (b) 750 (c) 800 (d) 1500

17). The value of $25 \div 15$ of $4 \times [4 \div 5 \times (9-7)] - (20 \div 5$ of 9) is:

- (a) $\frac{2}{9}$ (b) $\frac{2}{3}$ (c) $\frac{4}{9}$ (d) $\frac{1}{3}$

18). A certain sum amounts to Rs.291600 in 2 years and to Rs.314928 in 3 years on compound interest compounded annually. How much will be the simple interest (in Rs.) on Rs.40000 at the same rate for 2 years?

- (a) 8000 (b) 6400 (c) 7500 (d) 9600

19). A boat goes 27 km upstream and 33 km downstream in 6 hours. In the same time it can go 36 km upstream and 22 km downstream. How much time it will take to 36 km upstream and 44 km downstream?

- (a) 8 h 10 m (b) 8 h 30 m (c) 7 h 50 m (d) 8 h

20). The average height of some students in a group is 156 cm. If 5 students of average height 160 cm join the group, then the average height of all the students in the group increases by 0.8 cm. What is the number of students in the group initially?

- (a) 25 (b) 15 (c) 20 (d) 10

21). A trader bought two articles for Rs.490. He sold one at a loss of 20% and the other at a profit of 16%. If the selling price of both article is same, then the cost price (in Rs.) of the article sold at 20% loss is:

- (a) 310 (b) 300 (c) 290 (d) 280

22). $\triangle ABC$ is inscribed in a circle with centre O, such that $\angle ACB = 115^\circ$. O is joined to A. What is the measure of $\angle OAB$?

- (a) 20° (b) 35° (c) 25° (d) 30°

23). If $x + y = 2$ and $\frac{1}{x} + \frac{1}{y} = \frac{18}{5}$, then the value of $(x^3 + y^3)$ is:

- (a) $4\frac{2}{3}$ (b) $3\frac{1}{3}$ (c) $4\frac{3}{5}$ (d) $3\frac{1}{5}$

24). The area of a square shaped field is $1764 m^2$. The breadth of a rectangular park is $\frac{1}{3}rd$ the side of the square field and its length is two times its breadth. What is the cost (in Rs.) of travelling the park at Rs.15 per m^2 ?

- (a) 4200 (b) 5880 (c) 4320 (d) 4290

25). If $x^2 + 4y^2 = 53$ and $x - 2y = 5$, then what is the value of $x^3 - 8y^3$?

- (a) 85 (b) 155 (c) -85 (d) 335

26). If a number is first increased by 15%, then reduced by 15%, it results in 782. If the same number is first reduced by 25%, then increased

by 25% and again reduced by 20%, then what will be the resulting number?

- (a) 600 (b) 712 (c) 750 (d) 150

- 27). The data given in the table shows the number of boys and girls enrolled in three in different streams in a school over 5 years.

years	Arts		Science		Commerce	
	Boys	Girls	Boys	Girls	Boys	Girls
2012	48	36	40	35	35	45
2014	42	43	42	32	32	42
2016	45	42	38	30	36	38
2018	39	46	41	23	28	34
2020	36	43	39	30	39	41

By what percent is the total number of boys in Arts stream more than the total number of boys in Science stream in the years 2012 to 2020?

- (a) 0 (b) 5 (c) $2\frac{18}{41}$ (d) $4\frac{16}{21}$

- 28). In ABC, D is the mid-point of side AC and E is a point on side AB such that EC bisects BD at F. If AE = 30 cm, then the length of EB is:

- (a) 18 cm (b) 15 cm (c) 10 cm (d) 20 cm

- 29). Find the different between squares of the greatest value and the smallest value of P if the number 5306P2 is divisible by 3

- (a) 36 (b) 60 (c) 6 (d) 68

- 30). A shopkeeper allows 16% discount on every item. Even after giving the discount, he makes a profit 8%. If he gives 8% discount instead of 16% on an item marked for ₹1800, then what will be his profit percent? (correct to 2 decimal places)

- (a) 18.31 (b) 19 (c) 18.29 (d) 18

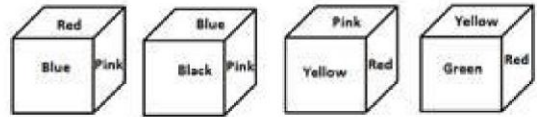
- 31). Select the option that is related to the third term in the same way as the second term is related to the first term.

AZ : BY :: ? : IR

- (a) HI (b) HS (c) HQ (d) OP

- 32). Observe the faces of the dice and then answer the question.

Which colour is opposite to Red?



- (a) Yellow (b) Pink (c) Green (d) Black

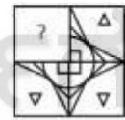
- 33). From the given answer figures, select the one in which the question figure is hidden/embedded.

Question Figure:



- (a) (b) (c) (d)

- 34). Which answer figure will complete the pattern in the question figure?



- (a) (b) (c) (d)

- 35). If 'M' means 'x', 'K' means '+', 'G' means '+', and 'P' means '-', then what is the value of

$$34 P 12 M 5 G 20 K 4 M 2 P 3$$

- (a) 62 (b) -19 (c) 29 (d) 41

- 36). Select the letter-cluster that can replace the question mark (?) in the following series.

W, U, R, N, I, ?

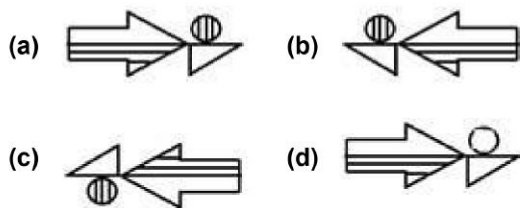
- (a) C (b) B (c) A (d) N

- 37). In a certain code language, CLICHE is written as DGBHKB. How will HUTCH be written as in that language?

- (a) GVUBG (b) VGBGU (c) GBSTG (d) UGBGV

- 38). Select minor image of the given figure when the mirror is placed to the right of the figure..





39). In the following question, a certain series of numbers or letters is given of which one series is empty. You have to decide which of the alternative series of the answer will be used in the blank space that is originally related to the sequence of that series.

V-19, U-14, T-10, ?, R-5

(a) R-9 (b) S-7 (c) S-17 (d) T-15

40). If the word MENTAL is coded as 130514200112, then how will word ABILITY be coded?

(a) 01020912092025 (b) 00120912092025
(c) 100120912092025 (d) 01029102092025

41). Three of the following four letter clusters are alike in a certain way and one is different. Find the odd one out.

(a) BE (b) HK (c) LN (d) QT

42). In the following question, select the odd number from the given alternatives.

(a) 147 (b) 122 (c) 294 (d) 420

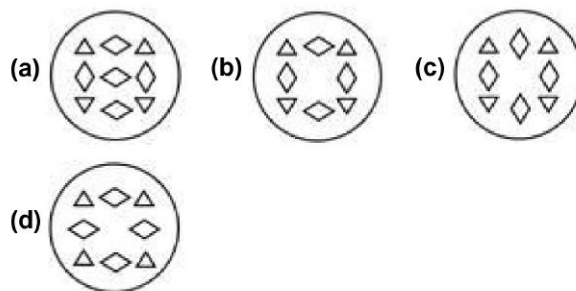
43). In the following question, select the odd number from the given alternatives.

(a) 196 (b) 166 (c) 510 (d) 720

44). Three of the following four words are alike in a certain way and one is different. Find the odd one out.

(a) Pigeon (b) Duck (c) Heron (d) Stork

45). The sequence of folding a piece of paper and the manner in which the folded paper has been cut is shown in the following figures. How would this paper look when unfolded?



46). In a company, Suresh's rank is seventy-fifth from the right end and is eleventh from the left end, how many employees are there in that company?

(a) 82 (b) 83 (c) 85 (d) 86

47). In a row of boys, Vineet's rank is eighth from the start and is fourteenth from the end. In another row of girls, Seeta's rank is ninth from the start and is eleventh from the end. How many students are there in both the rows together?

(a) 40 (b) 42 (c) 39 (d) 38

48). In a row of 140 girls, Shikha's rank is eighty-ninth from the top. Sunita is twelfth rank above of shikha. What is shikha rank from the top?

(a) 78 (b) 79 (c) 75 (d) 77

49). In question below are two statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance from commonly facts and then decide which of the given conclusions logically follows from the given statements.

Statements:

I. Some swift are I10.

II. Some I10 are alto.

Conclusions:

I. Some alto are I10.

II. Some alto are swift.

(a) Either conclusion I or II follows.
(b) Neither conclusion I nor II follows.
(c) Only conclusion I follows.
(d) Both conclusions I and II follows.

50). In question below are two statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance from commonly facts and then decide which of the

given conclusions logically follows from the given statements.

Statements:

I. All stags are rams.

II. All rams are kites.

Conclusions:

I. Some kites are stags.

II. Some stags are kites.

- (a) Either conclusion I or II follows.
(b) Neither conclusion I nor II follows.
(c) Only conclusion II follows.
(d) Both conclusions I and II follows.

51). In question below are two statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance from commonly facts and then decide which of the given conclusions logically follows from the given statements.

Statements:

I. Some erasers are pencils.

II. Some pencils are pens.

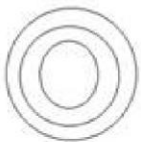
Conclusions:

I. Some pens are erasers.

II. All erasers are pens.

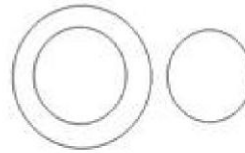
- (a) Either conclusion I or II follows.
(b) Neither conclusion I nor II follows.
(c) Only conclusion II follows.
(d) Both conclusions I and II follows.

52). Identify the classes that best represents the relationship among the given diagram.



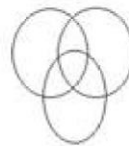
- (a) Harappa Civilization, Mohenjo-Daro, Citadel
(b) Pigeons, Birds, Dogs
(c) Males, human beings, fathers
(d) Harappa civilization, kalibangam, Mohenjo-Daro

53). Identify the classes that best represents the relationship among the given diagram.



- (a) Jain text, Vinaya pitaka, Mahayana Sutra
(b) Magesthanes, triptaka, The Agamas
(c) Buddhist, Indica, Tripitaka
(d) Vedas, Regveda, Kaamveda

54). Identify the classes that best represents the relationship among the given diagram.



- (a) Red, Blue, Magenta
(b) Rhombus, Quadrilateral, Polygons
(c) Reptiles, Lizard, Lion
(d) Cricketer, Footballer, Indian

55). In the following question, choose the pair/group of words that shows the same relationship as given at the top of every pair/group.

Rose : Flower :: Apple : ?

- (a) Vegetable (b) Fruit (c) Plywood (d) Juice

56). In the following question, choose the pair/group of words that shows the same relationship as given at the top of every pair/group.

Water : Liquid :: Rock : ?

- (a) Gas (b) Solid (c) Weak (d) Strong

57). In the following question, choose the pair/group of words that shows the same relationship as given at the top of every pair/group.

March : Month :: Monday : ?

- (a) Day (b) Year (c) Decade (d) Week

58). Which is the wrong number in the following number series?

20, 18, 16, 15, 11, 12

- (a) 11 (b) 15 (c) 12 (d) 18

59). Which is the wrong number in the following number series?

20, 45, 81, 130, 194, 276

(a) 194 (b) 45 (c) 276 (d) 130

60). Which is the wrong number in the following number series?

425, 419, 405, 369, 305, 205

(a) 425 (b) 419 (c) 369 (d) 305

61). Rajiv Gandhi Khel Ratna Award is accorded annually by the:

- (a) Rajiv Gandhi Memorial Trust
- (b) Indian National Congress
- (c) Ministry of Youth Affairs and Sports
- (d) Ministry of Human Resource Development, Govt of India

62). What is the meaning of the Greek origin words, 'Elektron'?

(a) Negative (b) Ebonite (c) Amber (d) Charge

63). The tomb of Itimad-ud-Daulah, Inlaid with Pietra dura decoration is located at:

(a) Alwar (b) Agra (c) Aurangabad (d) Ajmer

64). Which of the following Articles of the constitution of India prohibits employment of children in factories etc.?

(a) 21 (b) 24 (c) 31 (d) 17

65). Part IV of the Indian Constitution contains the provision on:

- (a) Citizenship (b) Elections
- (c) Fundamental Rights
- (d) Directive Principles of state Policy

66). In which of the following places is Govardhan Math located?

(a) Dwarka (b) Badrinath (c) Sringeri (d) Puri

67). Which part of the brain is instrumental in making it possible for a person to perform activities, such as picking up a pencil from the floor?

(a) Hypothalamus (b) Cranium (c) Cerebrum
(d) Cerebellum

68). The Princely state of Hyderabad was brought under the Indian Union in the year ____.

(a) 1963 (b) 1952 (c) 1948 (d) 1950

69). Which section of the RBI Act empowers the central Government to supersede the RBI board and issue directors considered to be 'necessary in public interest' to the RBI, after consulting the Governor of the bank?

(a) Section 3 (b) Section 5 (c) Section 1
(d) Section 7

70). Vibration of which among the following produces only odd harmonics?

- (a) An air column in a closed organ pipe.
- (b) A Vibrating string fixed at two ends
- (c) An Air column in an open organ pipe.
- (d) A vibrating fixed at two ends.

71). Viticulture refers to the :

- (a) Breeding of fish
- (b) Commercial rearing of silkworm
- (c) Growing of vegetables
- (d) Cultivation of grapes

72). The Tata Iron and Steel Company (TISCO) is located at which of the following places?

(a) Jamshedpur (b) Bhilai (c) Durgapur
(d) Rourkela

73). Kalinjar Fort, Which was strategically important during medieval times, is located in :

(a) Sind (b) Rajasthan (c) Uttar Pradesh
(d) Punjab

74). Kamban wrote the Ramayana in which of the following languages?

(a) Malayalam (b) Tamil (c) Telugu
(d) Kannada

75). Which among the following is NOT true about a solution and the solute concerned?

- (a) The particles of the solute do not scatter a beam of light.
- (b) The particles of the solute settle down at the bottom when the solution is kept undisturbed.

(c) The particles of the solute cannot be seen with unaided eyes.

(d) A solution is a homogeneous mixture.

76). The Summer Olympic Games 2000 were held in _____.

(a) Athens (b) Paris (c) Seoul (d) Sydney

77). Which of the following terms is associated with the anatomy of the human heart?

(a) Cerebellum (b) Aorta (c) Cerebrum
(d) Medulla

78). What is the number of hydrogen atoms in a molecule of calcium bicarbonate?

(a) 4 (b) 0 (c) 1 (d) 2

79). In the context of the Sri Lankan Civil War, What does the first 'T' in LTTE stand for?

(a) Tarantulas (b) Tamil (c) Tigers (d) Triumph

80). Who among the following is the founder of the social activist organization called 'Global March Against Child Labour'?

(a) Kailash Satyarthi (b) Baba Amte
(c) Kiran Bedi (d) Anna Hazare

81). The National Anthem of India, 'Gana Gana Mana' was sung at the _____ session of the Indian National congress.

(a) Belgaum (b) Calcutta (c) Lahore (d) Tripuri

82). Who among the following is the only Indian shutter to have won a Summer Olympics silver medal?

(a) Prakash Padukone (b) Pulela Gopichand
(c) Sania Nehwal (d) PV Sindhu

83). With reference to the United Nations Sustainable Development Goal, Which of the following is SDG 10?

(a) Climate action (b) Zero hunger
(c) Reduced inequalities
(d) Decent work and economic growth

84). In which year did the first SAARC summit take place?

(a) 1990 (b) 1972 (c) 1985 (d) 1992

85). In respect of classification of algae, the members of phaeophyceae are commonly called

(a) Brown algae (b) White algae (c) Green algae
(d) Red algae

86). The 'Kathasaritasagara' is written by:

(a) Bhasa (b) Somadeva (c) Kalidas
(d) Jayadeva

87). Which of the following viceroys appointed the Hunter commission in 1882?

(a) Lord Minto (b) Lord Lytton (c) Lord Ripon
(d) Lord Mayo

88). Which among the following are called the amphibians of the plant kingdom?

(a) Liverworts (b) Gymnosperms (c) Bryophytes
(d) Pteridophytes

89). Who among the following did NOT belong to the Rajput Kingdom of Mewar?

(a) Maldeva (b) Rana Kumbha (c) Rao chanda
(d) Rao Jodha

90). The headquarters of the World Trade Organization is located at:

(a) Paris (b) Dubai (c) Geneva (d) Bonn

91). The 90 degree East Meridian does NOT pass through:

(a) Meghalaya (b) Sikkim (c) Bangladesh
(d) Bhutan

92). Which of the following persons won the Sultan Padamsee playwriting Award for his first play 'Larins Sahib'?

(a) Ramchandra Guha (b) Amitav Ghosh
(c) Gurucharan Das (d) Shashi Tharoor

93). Leukaemia is a cancer of the _____.

(a) Lungs (b) Skin (c) Uterus (d) Blood

94). How many natural satellites does the planet Venus have?

(a) 1 (b) 2 (c) 3 (d) 0

95). The Rig Veda is divided into _____ books of mandalas.

- (a) 34 (b) 10 (c) 8 (d) 12

96). 1 horse power is equal to approximately _____ watts.

- (a) 1000 (b) 500 (c) 750 (d) 250

97). With which first sports would you associate the name Sathish Sivalingam?

- (a) Weightlifting (b) Boxing (c) Wrestling
(d) Hockey

98). Which among the following organizations releases the Index of Economic Freedom?

- (a) World Bank (b) Fraser Institute
(c) International Monetary Fund
(d) Heritage Foundation

99). The Silent Valley Movement was started in 1973 in the state of:

- (a) Odisha (b) Kerala (c) Andhra Pradesh
(d) Himachal Pradesh

100). Bangladesh was a part of Pakistan from _____ to _____.

- (a) 1947; 1971 (b) 1947; 1958 (c) 1947; 1989
(d) 1947; 1962

