1. He says he is ........ US citizen.
   a. a  b. an  c. the  d. nothing

2. He is ........ only teacher for this subject.
   a. a  b. an  c. the  d. nothing

3. Cottage industries supply us ........ our daily needs.
   a. in  b. from  c. with  d. by

4. They prefer begging ........ working.
   a. from  b. than  c. to  d. by

5. It ........ for 3 hours when we left home.
   a. rains  b. is raining  c. has rained  d. had been raining

6. ........? Yes, let's start the lesson.
   a. Do you start the lesson?  b. Will you start the lesson?
   c. Shall we start the lesson?  d. Can we start the lesson?

7. The negative form of 'Someone said something' is ........
   a. Someone didn't say anything.
   b. None said nothing.
   c. Anyone didn't say anything.
   d. No one said anything.

8. Either you or your father is wrong, ........?
   a. isn’t he  b. aren’t they
   c. aren’t you  d. don’t you

9. Nobody’s touched her yet,?
   a. have they  b. has they
   c. have nobody  d. hasn’t anybody

10. The passive form of 'He wanted me to carry his bag' is ........
    a. His bag was wanted me to carry.
b. He wanted me to be carried his bag.
c. I am wanted to carry his bag by him.
d. He wanted his bag to be carried by me.

11. The active form of 'This problem can't be solved by anyone' is ........
a. No one can solve this problem.
b. Anyone can't solve this problem.
c. None can be solved this problem.
d. None can't solve this problem.

12. What ........ if I didn't marry you?
   a. you would do  b. would you do
   c. you did       d. did you do

13. If you had been there, you ........
   a. would have punished
   b. would punish
   c. would be punished
   d. would have been punished

14. My brother always has me ........ his homework.
   a. do              b. to do
   c. done           d. doing

15. Can you get this bike ........?
   a. repair         b. to repair
   c. repaired       d. to be repaired

16. You can't help ........ her.
   a. to love        b. love
   c. loved         d. loving

17. Your health is not ........
   a. satisfied      b. satisfaction
   c. satisfactory   d. satisfy

18. It was a ........ flight.
   a. legal          b. lawful
   c. legalise       d. legally

19. I don't know ........ he is staying with.
   a. where          b. whose
   c. which          d. who

20. We played well, ........, we lost the game.
   a. however        b. although
   c. so             d. as
21. How much joule in there in 1 calorie?
   (1 Calorie भर्तको करत Joule हो ?)
   a. 2.2 Joule  b. 3.2 Joule  
   c. 4.2 Joule  d. 5.2 Joule

22. The valency of phosphorus is .......... 
   (Phosphorus को संयुक्तता .......... हो ?)
   a. 1 and 2  b. 2 and 3  
   c. 3 and 5  d. 1 and 3

23. In hypermetropia person can not see ...........
   (पूरे दुर्देश कमजोरिमा मानिसले .......... को देखत नहीं सक्देन हो)
   a. near object  b. far object  
   c. thin object  d. thick object

24. Which of the following is metalloid?
   (लिमनोले Metalloid कृन हो ?)
   a. Mercury  b. Silicon  
   c. Gold  d. Magnesium

25. Which is the longest cell in the human body?
   (भारी शरीरमा पाइँदै सबैभन्दा साम्य कोष कृन हो ?)
   a. Muscle cell  b. Bone cell  
   c. Nerve cell  d. None of above

26. Potato tuber gives rise to a new plant in the soil. What type of asexual reproduction is it?
   (आवृत भारीमा नव विविध उत्पन्न गरेको भएको अभावमूलक प्रजनन हो ?)
   a. Sporulation  b. Vegetative propagation  
   c. Fragmentation  d. Budding

27. Which material is used as heating element in heater?
   (Heater भनो Heating Element जो ट्यापा कृन पराप्त घरिन्छ ?)
   a. Copper  b. Tungsten  
   c. Iron  d. Nichrome

28. Specific heat capacity of iron is ...........
   (पदार्थको विनिल्युट तापधारण क्षमता ............. हुँदै ?)
   a. 380 J/Kg°C  b. 390 J/Kg°C  
   c. 470 J/Kg°C  d. 670 J/Kg°C

29. Which cell of the human blood does HIV affect?
   (HIV भनो सान्ताको बुन रस्तोकोष्ठाइ भस्तर पायबाट ?)
   a. WBC  b. RBC  
   c. Platelets  d. All of these

30. The division of fern is .......... 
   (उनुखो Division .......... हो ?)
   a. Thallophyta  b. Pteridophyta  
   c. Bryophyta  d. Protista

31. Which of the following is liquid?
   (लिमनोले तरस कृन हो ?)
   a. Aluminium  b. Calcium
32. What is the formula of slaked lime?
   (Slaked Lime को यून कन हो ?)
   a. NaOH      b. CaO
   c. Ca(OH)₂    d. Mg(OH)₂

33. The estimated age of the earth is ............
   (पृथ्वीको अनुमानित उम्र ......... हो ?)
   a. 5.4 Billion year  b. 4.5 Billion year
   c. 5 Billion year    d. 5.5 Billion year

34. Voluntary muscles are found in ............
   (ईंध्यञ्जीन माहर्षीह्यहरु ......... मा पाइन्छन् ?)
   a. heart      b. liver
   c. lungs      d. foot

35. By which method heat is transmitted in water?
   (पानीमा ज्वाला विद्युत तय प्रसारण हुन ?)
   a. Evaporation b. Radiation
   c. Convection  d. Conduction

36. Which era is called era of creppers?
   (युग पनि चर्का जबन जन्तुहरूको युग भनिन्छ ?)
   a. Archean and Proterozoic era
   b. Mesozoic era
   c. Palaeozoic era
   d. Cainozoic era

37. Reflex action is controlled by ............
   (आक्रामक नियन्त्रण ......... भने नियन्त्रण गर्न्छ ?)
   a. brain
   b. automatic nervous system
   c. spinal cord
   d. peripheral nervous system

38. Insulin is produce by ............
   (Insulin ............ मे उत्पन्न गर्न्छ ?)
   a. duodenum    b. pancreas
   c. gall bladder d. liver

39. What should be pH-value to be strong acid?
   (वट बस्नुहोस् फ एच-व्यङ्ग कृति हुन पर्ने ?)
   a. Less than 4   b. More than 4
   c. Less than 2   d. More than 2

40. In the periodic table all the non-metals are placed under ............
   (प्राकृतिक तालिकामा सबै अमूर्तता ......... भने गरिन्छ ?)
   a. S–block    b. P–block
   c. d–block    d. f–block

**Math (1×20=20)**
41. If $A$ and $B$ are two subsets of $\bigcup$ with $n(\bigcup) = 43, n(A) = 25, n(B) = 18$ and $n(A \cap B) = 7$, which is the value of $n(A \cup B)$?

(a) 36  (b) 7  (c) 43  (d) 30

42. How many diagonals is regular octagon?

(निकाहित अष्टकोण की लंबाई लिखित हूँ?)

(a) 20  (b) 18  (c) 22  (d) 19

43. What is the area of a circle whose radius is the diagonal of square whose area is 4 cm$^2$?

(एक वर्तमान रासायनिक शंकु हो । जसकी अन्तर्गत क्षेत्रफल 4 वर्ग से. मी. अग्निको बाह्य विकल्प छ ।)

(a) $2\pi$  (b) $2\pi \sqrt{2}$  (c) $4\pi$  (d) $8\pi$

44. What is the total surface area of a solid sphere of diameter 14 cm?

(वाय । मात्र गहरीले टोल गोलको द्वारा तत्वकृत शृंखला लिखित हूँ) ।

(a) $98\pi$ cm$^2$  (b) $196\pi$ cm$^2$  (c) $392\pi$ cm$^2$  (d) $588\pi$ cm$^2$

45. The marked price of a FM radio is Rs. 1200. What is the discount rate, if it is sold price is Rs. 960?

(एक वर्तमान FM Radio को अनेक मूल्य र. 1200 हुँ। वर्तमान की मूल्य र. 960 मन्द छ दर कर्त्ता होता ।)

(a) 10%  (b) 20%  (c) 15%  (d) 8%

46. If $n(A) = 80$ and $n(B) = 65$, what is the least value of $n(A \cup B)$?

(यदि $n(A) = 80$ र $n(B) = 65$ भने $n(A \cup B)$ को न्यूनतम मान कर्ता होता ।)

(a) 125  (b) 20  (c) 80  (d) 65

47. 2 years ago, the population of a village was 50000. If the population growth rate is 3% then find the present population of village.

(2 वर्ष पहिले एक गाउँको जनसंख्या 50000 मिति ह। यदि जनसंख्या में वृद्धि 3% मन्द भने तत्वकृत जनसंख्या लिखित हूँ।)

(a) 53045  (b) 53054  (c) 53540  (d) 53504

48. If 10 cows eat as much as 6 oxen, how many oxen will eat as much as 15 cows?

(यदि 10 गाईहरै खाने अवस्था 6 गोश्विन्द्र भने कर्ता गोश्विन्द्र खाने अवस्था 15 गाईहरै होलो ।)

(a) 10  (b) 6  (c) 9  (d) 15

49. The price of an article is Rs. 6000 after 20% VAT, then find the VAT amount.

(एक वर्तमान गोल्को मूल 20% VAT पछि ह. 6000 मन्द भने VAT राशि लिखित हूँ)।

(a) Rs. 1000  (b) Rs. 1100  (c) Rs. 1200  (d) Rs. 1500

50. If $2^x = 4a = x - 6$, what is the value of $a$?
51. If $\sqrt{x - 7} = 1 + \sqrt{x}$, what is the value of $x$?
(a) 8  (b) 9  (c) 16  (d) None of above

52. A coin and a die are thrown together, what is the probability that the coin falls head and dice show 3?
(a) $\frac{1}{12}$  (b) $\frac{5}{12}$  (c) $\frac{1}{4}$  (d) $\frac{1}{2}$

53. If a continuous series the mean ($\bar{x}$) = 80, assumed mean (A) = 60 and $\sum f_{d}$ = 40, what is the value of $\sum f_{d}$?
(a) 16  (b) 160  (c) 800  (d) 16000

54. If $a + b = 5$ and $ab = 6$, what is the value of $a^{2} - b^{2}$?
(a) 5  (b) 6  (c) 10  (d) 12

55. If thrice of my age 10 years ago be subtracted from twice my present age, the result is my present age.
(a) 16  (b) 15  (c) 9  (d) 10

56. If $3\sqrt{2 - \sqrt{x}} = 1$ then what is the value of $x$?
(a) 4  (b) 6  (c) 8  (d) 2

57. What is the cash payment of a bill amounting Rs. 1800 allowing a discount of 5% and levying 13% VAT?
(a) Rs. 1934.30  (b) Rs. 1933.30  (c) Rs. 1932.30  (d) Rs. 1931.30

58. In the given figure is solid pyramid with equilateral triangle as its base, if the volume of the pyramid is $300 \text{ cm}^{3}$ and its height is $3\sqrt{3} \text{ cm}$. What is the length of each side of the triangular base?
59. In the given figure, O is the centre of circle, XY \parallel BC, what is the value of x?

a. 20 cm  
b. 10 cm  
c. \(10\sqrt{3}\) cm  
d. \(20\sqrt{3}\) cm

60. In the given figure, PTR is tangent of a circle. If AT=PT and \(\angle APT=20^\circ\), what is the value of \(\angle ABT\)?

a. 35°  
b. 25°  
c. 15°  
d. 45°
a. 40°
b. 30°
c. 60°
d. 50°