1. Which of the following is not related with clouds?
   A. Stratified
   B. Cirrus
   C. Nimbus
   D. Cummulus

2. Spring tides occur at:
   A. half moon
   B. full moon
   C. Both
   D. None of these

3. Savanna prevail in:
   A. America
   B. Africa
   C. Australia
   D. India

4. Space age begin with:
   A. Explorer 1
   B. Sputnik 1
   C. Sputnik 2
   D. US mariner 2

5. Equinox means:
   A. when the night is longest
   B. when the days are longest
   C. two periods when day and night are equal
   D. None of these

6. The rate of evaporation of water from a lake will be least in:
   A. dry climate
   B. variable temperature climate
   C. humid climate
   D. All of the above

7. Slope of line determined by the points $P(4, 6)$ and $Q(2, 12)$ is:
   A. 2
   B. -2
   C. 3
   D. -3

8. $\cos 15°$ has value:
   A. $\sqrt{3}$
   B. $\sqrt{2}$
   C. $\sqrt{5}$
   D. $\frac{\sqrt{5}+1}{2\sqrt{2}}$

9. $\frac{x^2}{a^2} - \frac{y^3}{b^3} = 1$ is the equation of:
   A. circle
   B. hyperbola
   C. straight line
   D. None of these

10. $(\cos Q + i \sin Q)(\cos - i \sin Q)$ has value:
   A. -1
    B. 1

C. 0
D. 2

11. A gas mixture consist of 2 moles of oxygen and 4 moles of argon at temperature T. Neglecting the vibrational mode, the total internal energy of the system is:
    A. 4 RT
    B. 15 RT
    C. 11 RT
    D. 9 RT

12. A disc of mass M and radius R is rolling with angular speed ω on a horizontal plane as shown. The magnitude of angular momentum of the disc about the origin O is:

    A. ½ MR² ω
    B. MR² ω
    C. 3/2 MR² ω
    D. 2 MR² ω
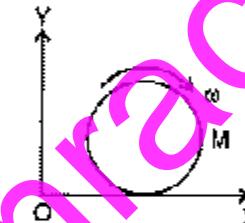
13. The ratio of the speed of sound in nitrogen gas to that in helium gas at 300 K is:
    A. $\sqrt{2/7}$
    B. $\sqrt{1/7}$
    C. $\sqrt{3}/5$
    D. $\sqrt{6}/5$

14. ^{22}Ne nucleus after absorbing energy decays into two α particle and an unknown nucleus. The unknown nucleus is:
    A. nitrogen
    B. carbon
    C. boron
    D. oxygen

15. The correct order of increasing c o bond length of CO, CO_3^{2-}, CO_2 is:
    A. $CO_3^{2-} < CO_2 < CO$
    B. $CO_2 < CO_3^{2-} < CO$
    C. $CO < CO_2 < CO_3^{2-}$
    D. $CO < CO_3^{2-} < CO_2$

16. Red litmus turn white with
    A. CH_3COOH
    B. NaOH
    C. H_2O_2
    D. None of these

17. Which of the following group is micro-element?
    A. Mn, Cu, Ca
    B. Na, K, B
    C. Na, Ni, Cl
    D. Cu, Mo, Zn
18. In seed germination first to occur is:
    A. osmosis
    B. diffusion
    C. endosmosis
    D. imbibition
19. In excess, CO_2:
    A. accelerates growth
    B. does not influence growth
    C. inhibits growth
    D. slow down growth
20. Brunner's gland are related with:
    A. digestive system
    B. respiratory system
    C. circulatory system
    D. excretory system
21. Action potential of a nerve cells is
    A. + 140 MV
    B. + 120 MV
    C. + 80 MV
    D. + 20 MV
22. Termination codons for protein synthesis are
    A. AUU, AUG, GUU
    B. UGA, UAA, UAG
    C. UAU, UAG, UUA
    D. AAA, UUU, UGA
23. Select the odd figure:

A.
```
X1
```
B.
```
X1      O
```
C.
```
        YF
X1      O
```
D.
```
X       YF
X1      O
```
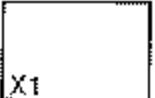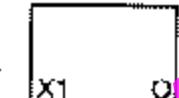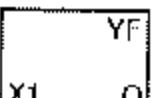
24. Processor unit contain:
    A. 14 register, an ALSU, three buses
    B. 10 register only
    C. ALSU
    D. None of these
25. When data is processed or converted to some meaningful form this is called:
    A. ALU
    B. CPU
    C. information
    D. ouput
26. Syntax and semantics are related with:
    A. high level language
    B. FORTRAN
    C. COBOL
    D. assembly language
27. "Software engineering" means:
    A. database record
    B. computer hardware system
    C. computer software system
    D. None of these of these
28. Lotus is an exciting and impressive piece of:
    A. hardware computer system
    B. software computer system
    C. database
    D. None of these
29. A particular type of data locate in a column is termed as
    A. attribute
    B. byte
    C. boof
    D. None of these of these
30. Listing of files on a particular disk is
    A. disk prefix
    B. cell
    C. directory
    D. None of these

ANSWERS

1	2	3	4	5	6	7	8	9	10
A	B	B	B	C	C	D	D	B	B
11	12	13	14	15	16	17	18	19	20
C	C	C	B	C	C	D	D	C	A
21	22	23	24	25	26	27	28	29	30
D	B	D	A	C	A	C	B	A	C