

1. What is the cause of fog in Newfoundland?

- A. condensation
- B. heavy rainfall
- C. evaporation
- D. meeting of hot and cold currents

2. Match the following:

Column A

Column B

- | | |
|------------|------------------------------|
| 1. Cusec | (i) Pressure |
| 2. Byte | (ii) Intensity of earthquake |
| 3. Richter | (iii) Rate of flow |
| 4. Bar | (iv) Computer memory |

- | | | | | |
|----|-------|------|-------|-------|
| | 1 | 2 | 3 | 4 |
| A. | (iv) | (i) | (ii) | (iii) |
| B. | (ii) | (iv) | (iii) | (i) |
| C. | (iii) | (iv) | (ii) | (i) |
| D. | (iii) | (ii) | (i) | (iv) |

3. What are Westerlies?

- A. Air moving from one direction to another
- B. Air blowing from high pressure area towards temperate regions
- C. Air raising towards the Poles and descending near 30°N and 30°S
- D. Trade winds which blow about 40°N to the Arctic circle from 35° South to Antarctic circle throughout the year

4. The techniques which are helped in improving the crop yield is/are:

- A. selection
- B. hybridization
- C. mutation
- D. all of the above

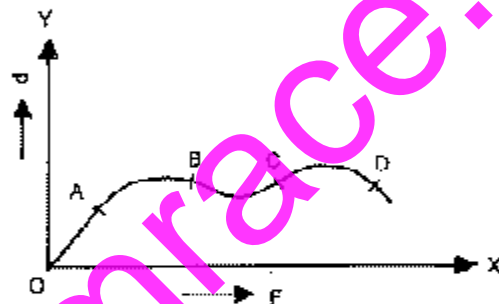
5. Tides in the sea are caused by:

- A. effect of moon
- B. effect of sun
- C. combined effect of moon and sun
- D. none of the above

6. Mark the correct statement regarding the black hole:

- A. light rays are emitted
- B. the X-rays are emitted
- C. radio-active rays are emitted
- D. alpha and gamma rays are emitted

7. In the figure given below position-time graph is depicted. Indicate the region where speed increases with time:



- A. BC
- B. both at $OA \rightarrow DE$
- C. OA
- D. DE

8. The star shine because they obtain energy by:

- A. Nuclear fission reactions
- B. Nuclear fusion reactions
- C. Bio-chemical reactions
- D. Gravitational reactions

9. The recently developed technique of monitoring foetal growth uses:

- A. microwave
- B. ultrasonics
- C. ultraviolet rays
- D. X-rays

10. Ice skating can be used to demonstrate that when ice is under pressure, its:

- A. melting point is lowered

- B. melting point is raised
 C. melting point remains unchanged
 D. co-efficient of friction with metal is reduced
11. The drugs caffeine, tobacco, tannin, nicotine are:
 A. mild alkali's B. alkaloids
 C. corfizones D. steroids
12. Coral is the:
 A. remains of any animal
 B. sea-plant
 C. deposits of a sea animal
 D. deposite of a sea animal
13. Opium is obtained from:
 A. dried leaves of the plant
 B. the roots of the plant
 C. dried seeds of the plant as oil
 D. unripe capesules as latex
14. Azobla can fix atmospheric nitrogen because of its association with:
 A. bacteria B. fungus
 C. blue-green algae D. green-algae
5. Match the following two columns and tick the correct answer from the codes given below:

<i>Crop</i>	<i>Family</i>
1. Cotton	(i) Gramineae
2. Brinjal	(ii) Leguminosae
3. Sugarcane	(iii) Malvaceae
4. Groundnut	(iv) Solanaceae

1	2	3	4
A. (i)	(i)	(iii)	(iv)
B. (iii)	(i)	(iv)	(ii)
C. (iii)	(iv)	(i)	(ii)
D. (ii)	(iv)	(i)	(iii)

16. Which one of the following is a non metallic mineral?

A. manganese B. magnesium

17. Waste products are used in the manufacture of one of the following:

A. alcohol B. bio-gas
 C. starch D. wine

18. Resonance structure of a molecule should have:

A. identical arrangement of atoms
 B. nearly the same energy content
 C. the same number of paired electrons
 D. all of the above

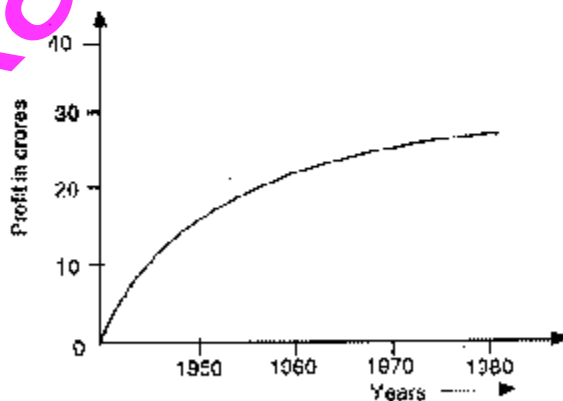
19. Secondary valency is:

A. less important valency state
 B. more important valency state
 C. co-ordination no. of complex
 D. none of the above

20. Radium was discovered from a mineral called:

A. soil B. silica
 C. pitchblende D. none of the above

21. Given graph is the profit made by CSIR for different years in the curve. From the curve find the profit for the year 1972.



A. 10 B. 25
 C. 28 D. 30

22. Let $A = \begin{vmatrix} 0 & 1 & -2 \\ -1 & 0 & 5 \\ 2 & -5 & 0 \end{vmatrix}$ then

C. $A' = 2A$ D. $A' = -A'$

23. The number of real solution of equation

$$|x|^2 - 3|x| + 2 = 0$$
 is:

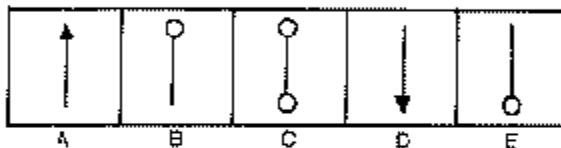
- A. 1 B. 2
C. 3 D. 4

24. In the power series expansion of e^x . The value

of $\frac{T_{1+n}}{T_n}$ is:

- A. x/r B. x/r
C. r/x D. r^2/x

25. Select the odd figure which does not match with series:



26. Micro-program is:

- A. the name of programs of very small size
B. the set of instructions indicating the primitive operation in a system
C. the name of source program is micro-com-

puters

D. the general name of 'MACRO'S' in assembly language programing

27. Group technology brings together and organizes:

- A. common parts, problems and tasks
B. parts and simulation analysis
C. automation and tool production
D. documentation and analysis

28. APL is primarily designed for:

- A. non-mathematical application
B. mathematical application
C. graphic application
D. bussiness application

29. Two major processing languages are:

- A. PROLOG and LISP
B. COBOL and FORTRAN
C. PLI and PASCAL
D. BASIC and PASCAL

30. Position feedback device on NC machine is:

- A. inductosyns B. linear scales
C. shaft encoder D. any of the above

ANSWERS

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