

SSC SPECIAL DAILY QUIZ -641
TOTAL QUESTIONS-40, TIME - 40 MINUTES, MARKS - 40
ARENA OF GENERAL KNOWLEDGE

1. Which of the following is used in beauty parlours for hair setting?
(a) Chlorine (b) Sulphur (c) Phosphorus (d) Silicon
2. How many colours the sunlight spectrum has?
(a) Five (b) Three (c) Seven (d) Four
3. Which of the following types of photons has the highest energy?
(a) Visible Radiations (b) Radio Waves (c) Gamma Rays (d) X-Rays
4. Consider the following statements about antigens
1. They induce the formation of antibodies
2. They provide immunity
3. They are formed only within the body
Of these statements the correct ones are
(a) 1 and 2 (b) 2 and 3 (c) 1 and 3 (d) 1, 2 and 3
5. Plants, like animals, respond to stimuli. Which of the following is not considered a plant's response to stimulus?
(a) The roots of plants grow generally down
(b) Plants die if they receive no water
(c) Plants grow towards light
(d) Flower of a sunflower plant faces towards the sun
6. Oncogenes are
(a) Genes present in prokaryotic cells (b) Tumor inducing genes
(c) Ancestral genes (d) Genes inhibiting cell division
7. The main occupation of the people of the Indus Valley civilization was
(a) Agriculture (b) Cattle Rearing (c) Hunting (d) Trade
8. Who was the first king to conquer Malwa, Gujarat and Maharashtra?
(a) Skandagupta (b) Samudragupta
(c) Chandragupta Maurya (d) Harshavardhana
9. The Peacock Throne was made for
(a) Jahangir (b) Akbar (c) Shahjehan (d) Aurangzeb
10. Who among the following said "Do or Die"?
(a) Mahatma Gandhi (b) Jawaharlal Nehru (c) Vallabhbhai Patel (d) None
11. The Indian National Congress adopted the resolution of Poorna Swaraj (complete independence) at its session held at
(a) Calcutta (b) Karachi (c) Allahabad (d) Lahore
12. Which of the following determines that the Indian Constitution is federal?
(a) A written and rigid constitution
(b) An independent judiciary
(c) Vesting of residuary powers with the centre
(d) Distribution of powers between the centre and states
13. The 44th Amendment modifies or nullifies a number of provisions of which amendment?
(a) 43rd (b) 42nd (c) 41st (d) 40th
14. Which spacecraft first landed on the Moon?
(a) Apollo 10 (b) Apollo 11 (c) Sputnik (d) Apollo 13
15. One degree of the circumference of the earth measures (approx).
(a) 100 Km (b) 111 Km (c) 151 Km (d) 175 Km
16. Diego Garcia is in

- (a) Arabian Sea (b) Bay of Bengal (c) Indian Ocean (d) Gulf of Aden
17. In which year was Pulitzer Prize established?
 (a) 1902 (b) 1908 (c) 1918 (d) None
18. The famous Dilwara Temples are situated in
 (a) Maharashtra (b) Uttar Pradesh (c) Madhya Pradesh (d) Rajasthan
19. The first Gas Cracker Plant has begun operations at
 (a) Hasan (b) Hajira (c) Pune (d) Nagathane
20. Which of the following is a Human Rights Organization?
 (a) The Arab League (b) Amnesty International
 (c) The French Community (d) The Organisation of African Unity
21. The Ashok Mehta Committee laid greater emphasis on :
 (a) Gram Sabha (b) Mandal Panchayat (c) Taluka Panchayat Samiti (d) Zila Parishad
22. 'Dyarchy' in the provincial Government was established by the -
 (a) Act of 1892 (b) Act of 1909 (c) Act of 1919 (d) Act of 1935
23. Which one of the following is a key function of firewall?
 (a) Monitoring (b) Deleting (c) Moving (d) Editing
24. A fuse wire is made of
 (a) an alloy of tin and copper (b) an alloy of tin and lead
 (c) an alloy of tin and aluminium (d) an alloy of nickel and chromium
25. The nature of sun's spectrum is
 (a) continuous spectrum with absorption lines (b) line emission
 (c) the spectrum of the Helium atom (d) continuous spectrum

ENGLISH BUZZ

Directions (26-35) In the following some of the words have been left out. Read the passage carefully and choose the correct answer to each question out of the four alternatives and fill the blanks.

In most enterprises around the world, it is the information technology infrastructure that is undergoing the most rapid upgradation. Perhaps this is a direct result of the rate of **(26)** in the Information Technology industry, **(27)** with new **(28)** and business **(29)** invading our consciousness everyday. In this context, it is the **(30)** of this new technology that looms **(31)** as an issue **(32)** chief information officers of end-user organisations. Given the **(33)** of magnitude **(34)** the investments required and associated **(35)** in human terms in order to effect change of this magnitude, this concern is hardly surprising.

26. (a) rejection (b) growth (c) obsolescence (d) magnificence
27. (a) where (b) hence (c) what (d) since
28. (a) armies (b) agencies (c) enemies (d) technologies
29. (a) relations (b) prospects (c) applications (d) agreements
30. (a) absorption (b) development(c) delineation (d) filtration
31. (a) large (b) wide (c) across (d) close
32. (a) eluding (b) facing (c) confounding (d) comprising
33. (a) order (b) priority (c) quality (d) gravity
34. (a) in (b) of (c) for (d) of
35. (a) choices (b) costs (c) feelings (d) possibilities

MASTERING MATHEMATICS

36. If $2s = a + b + c$, then, what is the value of $(s - a)^2 + (s - b)^2 + (s - c)^2 + s^2$
 (a) $a^2 + b^2 + c^2$ (b) $a^2 + c^2 + b^2$
 (c) $b^2 + c^2 + a^2$ (d) $c^2 + b^2 + a^2$

37. If $x - y = \frac{x + y}{7} = \frac{xy}{4}$ then what is the value of xy ?
- (a) $\frac{4}{3}$ (b) $\frac{3}{4}$ (c) $\frac{1}{4}$ (d) $\frac{1}{3}$
38. $\frac{2}{\sqrt{2 + \sqrt{2 + \sqrt{2 + 2\cos 4x}}}}$ equals
- (a) $\sec \frac{x}{2}$ (b) $\sec x$ (c) $\operatorname{cosec} x$ (d) 1
39. A tree is broken by the wind. If the top of the tree struck the ground at an angle of 30° and at a distance of 30 m from the root, then the height of the tree is
- (a) $15\sqrt{3}$ m (b) $20\sqrt{3}$ m (c) $25\sqrt{3}$ m (d) $30\sqrt{3}$ m
40. ABCD is a cyclic quadrilateral. Sides AB and DC, when produced meet at the point P and sides AD and BC, when produced meet at the point Q. If $\angle ADC = 85^\circ$, then $\angle BPC = 40^\circ$, then $\angle CQD$ is equal to
- (a) 30° (b) 40° (c) 55° (d) 65°

YOUR SCORE	SCORE
	35-40 : Outstanding <input type="checkbox"/>
	29-34: Very Good <input type="checkbox"/>
	23-28: Good <input type="checkbox"/>
	Less than 23: Average <input type="checkbox"/>

ANSWER KEYS

1.b, 2.c, 3.c, 4.a, 5.b, 6.b, 7.a, 8.c, 9.c, 10.a, 11.d, 12.d, 13.b, 14.b, 15.b, 16.c, 17.d, 18.d, 19.d, 20.b, 21.b, 22.c, 23.a, 24.b, 25.a, 26.b, 27.b, 28.d, 29.b, 30.b, 31.a, 32.c, 33.d, 34.d, 35.b, 36.a, 37.a, 38.a, 39.d, 40.a

EXPLANATIONS

36. a;

$$\begin{aligned}
 \text{LHS} &= (s-a)^2 + (s-b)^2 + (s-c)^2 + s \\
 &= (s^2 - 2as + a^2) + (s^2 - 2bs + b^2) + (s^2 - 2cs + c^2) + s^2 \\
 &= 4s^2 - 2s(a^2 + b^2 + c^2) + a^2 + b^2 + c^2 \\
 &= 4s^2 - 2s \times 2s + a^2 + b^2 + c^2 \quad (\because a + b + c = 2s) \\
 &= 4s^2 - 4s^2 + a^2 + b^2 + c^2 = a^2 + b^2 + c^2
 \end{aligned}$$

37. a;

$$\begin{aligned}
 \text{From ratio proportion, } \frac{x-y}{1} &= \frac{x+y}{7} = \frac{xy}{4} \\
 &= \frac{(x-y) + (x+y)}{1+7} \\
 &= \frac{(x-y) - (x+y)}{1-7}
 \end{aligned}$$

$$\Rightarrow \frac{x-y}{1} = \frac{x+y}{7} = \frac{xy}{4} = \frac{x}{4} = \frac{y}{3}$$

$$\text{Again, } \frac{xy}{4} = \frac{x}{4} = \frac{y}{3} = \frac{\sqrt{xy}}{\sqrt{4 \times 3}}$$

$$\text{or, } \frac{xy}{4} = \frac{\sqrt{xy}}{\sqrt{12}}$$

$$\text{or, } \frac{(xy)^2}{16} = \frac{xy}{12}$$

$$\Rightarrow xy = \frac{16}{12} = \frac{4}{3}$$

38. a;

Applying $1 + \cos 2\theta = 2 \cos^2 \theta$

We have, $\sqrt{2 + 2\cos 4x} = \sqrt{2(1 + \cos 4x)}$

$$= \sqrt{2 \cdot 2\cos^2 2x} = 2\cos 2x$$

$$\therefore \frac{2}{\sqrt{2 + 2\sqrt{2 + 2\cos 4x}}} = \frac{2}{\sqrt{2 + \sqrt{2 + 2\cos 2x}}} \text{ etc.}$$

39. d;

Height of tree = OA + AB = x + y

$$\cos 30^\circ = \frac{30}{y}$$

$$\Rightarrow \frac{\sqrt{3}}{2} = \frac{30}{y} \Rightarrow y = \frac{60}{\sqrt{3}} = 20\sqrt{3}$$

$$\tan 30^\circ = \frac{x}{30} \Rightarrow \frac{1}{\sqrt{3}} = \frac{x}{30} \Rightarrow x = 10\sqrt{3}$$

$$\therefore x + y = 10\sqrt{3} + 20\sqrt{3} = 30\sqrt{3}$$

40. a;

In $\triangle APD$, $\angle DAB + 85^\circ + 40^\circ = 180^\circ$

$$\Rightarrow \angle DAB = 55^\circ$$

In cyclic quadrilateral, $\angle ABC = 180^\circ - 85^\circ = 95^\circ$

Let $\angle CQD = \theta$ In $\triangle ABQ$, $\theta + 55^\circ + 95^\circ = 180^\circ$

$$\Rightarrow \theta = 180^\circ - 150^\circ = 30^\circ$$

SUCCESS IS THE SUM OF SMALL EFFORTS REPEATED DAY IN AND DAY OUT