

**QUESTION BOOKLET AND ANSWER KEY
FOR RECRUITMENT TEST OF**

Manager QC	Code-C-14
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HELD ON 18 & 19 Feb. 2012

ENGLISH VERSION

1. ਦੁਆਬੀ ਕੀ ਹੈ ?
(A) ਭਾਸ਼ਾ (B) ਉਪ-ਭਾਸ਼ਾ (C) ਇਲਾਕਾ (D) ਵਿਆਕਰਣ
2. ਪ੍ਰਸ਼ਨਵਾਚਕ ਪੜਨਾਵ ਚੁਣੋ:
(A) ਕੀ/ਕਿਹੜਾ (B) ਉਹ (C) ਮੈਂ (D) ਤੂੰ
3. ਵਸਤਵਾਚਕ ਨਾਂਵ ਚੁਣੋ :
(A) ਹਵਾ (B) ਪੁਸਤਕ (C) ਢੇਰ (D) ਕੱਪੜਾ/ਪਾਣੀ/ਤੇਲ
4. ਵਿਸ਼ੇਸ਼ਣ ਕਿੰਨੇ ਪ੍ਰਕਾਰ ਦੇ ਹੁੰਦੇ ਹਨ :
(A) ਛੇ (B) ਚਾਰ (C) ਪੰਜ (D) ਅੱਠ
5. ਹੇਠ ਲਿਖਿਆਂ ਵਿਚੋਂ ਸਮਾਸੀ ਸ਼ਬਦ ਚੁਣੋ
(A) ਕਾਲਾ-ਸਾਹ (B) ਕਲੱਤਣ (C) ਕਾਲਖ (D) ਕਾਲਜ
6. 'ਹੱਥ ਮਲਨਾ' ਮੁਹਾਵਰੇ ਦੀ ਕਿਸ ਅਰਥ ਵਿਚ ਵਰਤੋਂ ਹੁੰਦੀ ਹੈ :
(A) ਹੱਥ ਗਰਮ ਕਰਨਾ (B) ਹੱਥ ਨੂੰ ਅਰਾਮ ਦੇਣਾ
(C) ਪਛਤਾਉਣਾ (D) ਥੱਪੜ ਮਾਰਨਾ
7. ਸੱਦੀ ਨਾ ਬੁਲਾਈ.....ਅਖਾਣ ਪੂਰੀ ਕਰੋ ?
(A) ਮੈਂ ਮੁੰਡੇ ਦੀ ਤਾਈ (B) ਮੈਂ ਲਾੜੇ ਦੀ ਭਰਜਾਈ
(C) ਮੈਂ ਲਾੜੇ ਦੀ ਭਾਬੀ (D) ਮੈਂ ਲਾੜੇ ਦੀ ਤਾਈ
8. ਹੇਠ ਲਿਖਿਆਂ ਵਿਚੋਂ ਸ਼ੁੱਧ ਸ਼ਬਦ ਚੁਣੋ :
(A) ਬੋਹਤ (B) ਬਹੁਤ (C) ਬੌਤ (D) ਬੋਹਤ
9. 'ਕੁਰੀਤੀ' ਸ਼ਬਦ ਵਿਚ ਮੂਲ ਸ਼ਬਦ ਕਿਹੜਾ ਹੈ :
(A) ਕੁ (B) ਰੀ (C) ਤੀ (D) ਰੀਤੀ
10. 'ਬੇ' ਅਗੇਤਰ ਲਾਕੇ ਸ਼ਬਦ ਬਣਾਓ :
(A) ਘਰ (B) ਬੇਘਰ (C) ਮੱਘਰ (D) ਘਰੇਲੂ

Directions Q.11-14- Choose the correct antonym of the given word:-

Q.11. Ephemeral

- (A) disposition (B) permanent (C) legal (D) disdainful.

Q. 12. Vigorous:-

- (A) strong (B) weak (C) critical (D) ruthless

Q. 13. Gratuitous:-

- (A) necessary (B) stainless (C) foul (D) strong

Q.14 Improvised :-

- (A) prepared (B) calculating (C) cunning (D) sane

Directions Q. 15-17 :- Mark the correct meaning of the italicized idioms/phrases used in the following sentences out of the four choices:-

Q.15. The soldiers were *true to their salt*.

- (A) helped each other (B) became partners
(C) fond of salt (D) were faithful to their employers.

Q. 16. Satish always *runs down his opponents*:-

- (A) ignores (B) deceives (C) disparages (D) excites

Q.17. He does his work by *fits and starts* .

- (A) regularly (B) clearly (C) irregularly (D) intensely

Directions Q.18-20:- Choose the correct form of the phrasal verb.

Q. 18. I warmed ___ him when he helped my mother.

- (A) to (B) of (C) with (D) about

Q.19. They washed ___ the food with cold drinks.

- (A) off (B) down (C) up (D) on

Q.20. Don't trot ___ excuses for your defeat.

- (A) out (B) with (C) for (D) about

21. Which country is the largest producer of wheat?

- A) Canada B) China C) India D) USA

22. How many districts share border with the district Ludhiana?

- A) 5 B) 6 C) 7 D) 8

23. Who built the Bhadurgarh Fort?

- A) Ala Singh B) Bhai Singh C) Saif Khan D) Shah Jahan

24. Which of the following scheme/program was earliest to be launched?

- A) Integrated Rural Development Programme
B) Jawahar Rozgar Yojna
C) Prime Minister's Rozgar Yojana
D) The Swaran Jayanti Rozgar Yojana

25. Who wrote 'Marhi Da Deeva' and 'Addh Chanini Raat'?

- A) Amrita Pritam B) Bhai Vir Singh C) Gurdial Singh D) Mohan Singh

26. When did India and Pakistan first exchange the lists of nuclear installations and facilities covered under the 'Agreement on the Prohibition of Attack against Nuclear Installations and Facilities'?

- A) January 1, 1990 B) January 1, 1992 C) January 1, 1994 D) January 1, 1996

27. Norman Borlaug, popularly called "the father of the Green Revolution", was born in:

- A) Norway B) Sweden C) UK D) US

28. What is the maximum strength of the Lok Sabha envisaged by the Constitution?

- A) 530 B) 545 C) 550 D) 552

29. **Where is Institute of Microbial Technology situated?**
 A) Chandigarh B) Hyderabad C) New Delhi D) Pune
30. **About what percent of Geographical Area of Punjab is under the Forest Cover?**
 A) 1.6% B) 3.3% C) 6.1% D) 13.3%
31. **When was New Delhi proclaimed as the capital of British Raj?**
 A) December 12, 1911 B) December 11, 1912
 C) December 14, 1913 D) December 13, 1914
32. **Where is Yelahanka Air Force Station situated?**
 A) Andhra Pradesh B) Gujarat C) Karnataka D) Maharashtra
33. **When was the Kyoto Protocol adopted?**
 A) 5 June 1992 B) 11 December 1997
 C) 16 February 2005 D) 16 July 2007
34. **India's independence day coincides with:**
 A) Australia Day B) Canada Day
 C) South Korea's independence day D) Sri Lanka's Independence Day
35. **Mullaperiyar dam has become a contentious issue between:**
 A) Andhra Pradesh and Tamil Nadu B) Karnataka and Tamil Nadu
 C) Kerala and Karnataka D) Tamil Nadu and Kerala
36. **Where is Valmiki National Park located?**
 A) Bihar B) Madhya Pradesh C) Orissa D) Uttar Pradesh
37. **Which traditional dance form originating from the tribal communities of Punjab is also said to be originally performed by Princess of Marwad to show excessive emotion at her separation from a Rajkumar of Rajasthan?**
 A) Jaago B) Jhumar C) Luddi D) Sammi
38. **As per provisional estimates what is population density of India?**
 A) 319 B) 328 C) 382 D) 391
39. **Match List I (Person) with List II (Field of reckoning)**

List I 1-Dan Shechtman 2-Saul Perlmutter 3-Thomas J. Sargent	List II a-Chemistry b-Economics c-Physics
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 A) 1-a, 2-b, 3-c B) 1-a, 2-c, 3-b C) 1-b, 2-c, 3-a D) 1-c, 2-a, 3-b
40. **Match List I (Person) with List II (Sport)**

List I 1-Rajpal Singh 2-Rakesh Kumar 3-Ravinder Singh	List II a-Hockey b-Kabaddi c-Wrestling
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 A) 1-a, 2-b, 3-c B) 1-b, 2-a, 3-c C) 1-a, 2-c, 3-b D) 1-c, 2-b, 3-a

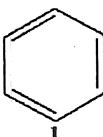
41. Which of the following rational numbers has a terminating decimal expansion?
 A) $\frac{129}{2^2 5^7 7^5}$ B) $\frac{6}{15}$ C) $\frac{79}{210}$ D) $\frac{1475}{512}$
42. In any circle, ratio of the circumference to its diameter is
 A) a rational number B) an irrational number
 C) less than 3 D) more than 4
43. The number $7 \times 11 \times 13 + 13$ is
 A) Prime B) composite C) divisible by 7 D) divisible by 5
44. If two zeroes of a polynomial, $2x^4 - 3x^3 - 3x^2 + 6x - 2$, are $\sqrt{2}$ and $\frac{1}{2}$ then other two zeros are
 A) $-\sqrt{2}$ and -1 B) $-\sqrt{2}$ and $-\frac{1}{2}$ C) $-\sqrt{2}$ and 1 D) $-\frac{1}{2}$ and 1
45. The lines $x + 2y - 4 = 0$ and $2x + 4y - 12 = 0$ are
 A) Coinciding B) Intersecting C) not planar D) Parallel
46. The cost of 5 oranges and 3 apples is Rs 35 and the cost of 2 oranges and 4 apples is Rs 28. The total cost of an orange and an apple is Rs.
 A) 6 B) 12 C) 9 D) 18
47. Two numbers whose sum is 27 and product is 182 are
 A) 13, 14 B) 12, 15 C) 11, 16 D) none of these
48. Which of the following is an AP?
 A) $1, -1, -3, -5, \dots$ B) $4, 10, 16, 22, \dots$
 C) $-2, 2, -2, 2, -2, \dots$ D) $1, 1, 1, 2, 2, 2, 3, 3, 3, \dots$
49. Which term of the AP: 5, 11, 17, 23, ... is 301
 A) 66 B) 65 C) 60 D) none of these
50. Rs. 100 invested for 5 years at 6% per annum interest compounded annually will grow to:
 A) $100(1 + .06)^5$ B) $100[1 + (.06)(5)]$ C) $[100(1.06)]^5$ D) 106^5
51. Find the odd one out of, mk, qn, ur, yv
 A) mk B) qn C) ur D) yv
52. For the coded series : yvq, urm, ifa, nkf, khe, what could be included?
 A) zwr B) vqn C) rok D) kfb
53. Find the odd one out in the series: 31, 61, 91, 101, 131
 A) 61 B) 91 C) 101 D) 131
54. What should replace X in The following arrangement?

1	0	1	1
0	1	1	0
1	1	X	1
1	0	1	1

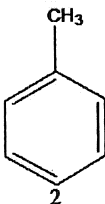
 A) 0 B) 1 C) 2 D) 3

55. What per cent of 5 is 15?
A) $15/5 \times 100$ B) $5/15 \times 100$ C) 5/15 D) 15/5
56. Following statements have been recorded on relationships: A is brother of B, C is daughter of B, E is father of B, D is sister of F, G is cousin of E. F is brother of C. Who is Uncle of F?
A) A B) B C) E D) G
57. In a cricket Test match, while playing against Australia, Sachin scored more runs than Sehwag, Dravid scored more runs than Dhoni, Gautam Gambhir scored more runs than Sachin and Rohit scored more runs than Dhoni. Who scored the least runs in the Test?
A) Dhoni B) Sehwag C) Data inadequate D) Data inconsistent
58. In a village 230 inhabitants could only speak Punjabi and not Hindi, and 160 could also speak both in Hindi and in Punjabi. While 28 inhabitants could neither speak in Hindi nor in Punjabi. If there are 375 inhabitants in the village and 258 could not speak in Hindi then how many could speak in Hindi?
A) 117 B) 160 C) Data inadequate D) Data inconsistent
59. Four coins are tossed simultaneously. In how many of the outcomes will the second coin turn up a head?
A) 4 B) 8 C) 12 D) 16
60. If December 25 is observed on Sunday, then the next 26th January will be observed on:
A) Thursday B) Wednesday C) Tuesday D) Friday
61. Which of the following oil contain maximum quantity of saturated fats.
A) butter B) vanaspati oil C) ground nut oil D) mustard oil
62. Sample of keroscence, vegetable oil, butter, groundnut oil are taken in different test tubes. Few drops of bromine are added to each test tubes. You will observe decolorisation of bromine water in which case.
A) keroscence and butter B) keroscence and vegetable ghee
C) groundnut oil and butter D) butter and vegetable ghee
63. When partial hydrogenation of oil is done in the presence of nickel at 200°C the product obtained is
A) vanaspati ghee B) margarine C) linseed oil D) butter
64. Which of the following oil contain maximum quantity of trans fats.
A) butter B) vanaspati oil C) ground nut oil D) mustard oil
65. Consumption of vanaspati oil increases which form of cholesterol in body
A) LDL cholesterol B) HDL cholesterol C) HDH cholesterol D) none of the above
66. Raman effect is
A) absorption of light B) emission of light
C) elastic scattering of light D) inelastic scattering of light

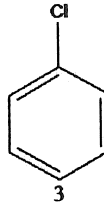
67. **The Joule-Thomson expansion of an ideal gas is**
 A) an isothermal process B) an isobaric process
 C) an isentropic process D) an isenthalpic process
68. **For a cubic crystal d_{100}/a is equal to**
 A) 1 B) 1/2 C) 1/4 D) 1/8
69. **In the X-ray diffraction pattern for a b.c.c. lattice, h, k, l can have**
 A) h + k + l odd B) odd values C) even values D) h + k + l even
70. **The adiabatic process is**
 A) isochoric B) isobaric C) isenthalpic D) isentropic
71. **For a reaction, $\Delta G = 0$, the reaction is**
 A) in equilibrium B) exothermic C) endothermic D) spontaneous
72. **The Maxwell entropy equation is**
 A) $S = k \ln W$ B) $S = R \ln W$ C) $S = nR \ln(V_2/V_1)$ D) $S = k^2 \ln W$
73. **For the reaction $A(g) + B(s) \leftrightarrow 2C(g)$ carried out in a 0.5 litre vessel, the number of moles present at equilibrium are one mole of A, 2 moles of B and 3 moles of C. The value of K_c is**
 A) 4.5 B) 9 C) 6 D) 18
74. **For 4s-orbital, the magnetic quantum numbers has the value**
 A) 2 B) 4 C) 1 D) 0
75. **The presence of three unpaired electron in nitrogen atom can be explained by**
 A) Pauli's rule B) Uncertainty principle
 C) Aufbau's rule D) Hund's rule
76. **What transition in He^+ ion shall have the same wave number as the first line in Balmer series of hydrogen atom?**
 A) 7→5 B) 5→3 C) 6→4 D) 4→2
77. **Consider the following ions**
 1. Ni^{2+} 2. Co^{2+} 3. Cr^{2+} 4. Fe^{3+}
 (Atomic number : Cr = 24, Fe = 26, Co = 27 and Ni = 28)
 The correct sequence of increasing number of unpaired electrons in these ions is
 A) 1,2,3,4 B) 4,2,3,1 C) 1,3,2,4 D) 3,4,2,1
78. **The ionisation gain enthalpy of nitrogen is more than that of oxygen because of**
 A) Greater the attraction of nucleus for the electrons
 B) The extra stability of half filled p-orbitals
 C) smaller size of nitrogen atom
 D) more penetrating effect
79. **Electronegativity values of elements help in predicting**
 A) Strength of element B) Polarity of molecules
 C) Size of the molecules D) Valency of elements
80. **Hydrogen bond is strongest in**
 A) S-H.....O B) O-H.....S C) F-H.....F D) F-H.....O
81. **What is the mass of hydrogen peroxide in 1L of 3M solution?**
 A) 10.2g B) 102g C) 11.3g D) 68g

82. **Epson salt is**
 A) $\text{Na}_2\text{SO}_4 \cdot 10\text{H}_2\text{O}$ B) $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$ C) $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$ D) $\text{MgCl}_4 \cdot 7\text{H}_2\text{O}$
83. **The correct order of mobility of alkali metal ion in aqueous solution is**
 A) $\text{Na}^+ > \text{K}^+ > \text{Rb}^+ > \text{Li}^+$ B) $\text{K}^+ > \text{Rb}^+ > \text{Na}^+ > \text{Li}^+$
 C) $\text{Rb}^+ > \text{K}^+ > \text{Na}^+ > \text{Li}^+$ D) $\text{Li}^+ > \text{K}^+ > \text{Na}^+ > \text{Rb}^+$
84. **In Al_2Cl_6 , the number sigma and co-ordinate bonds are**
 A) 3,3 B) 2,4 C) 4,2 D) 6,0
85. **Which of the following is an amphoteric oxide?**
 A) B_2O_3 B) ZnO C) Na_2O D) SO_2
86. **Hybridation of boron and oxygen atoms in boric acid (H_3BO_3) are respectively.**
 A) sp^3 and sp^2 B) sp^2 and sp^3 C) sp^3 and sp^3 D) sp^2 and sp^2
87. **Keto enol tautomerism is shown by**
 A) $\text{C}_6\text{H}_5\text{CHO}$ B) $\text{C}_6\text{H}_5\text{COCH}_3$ C) $\text{C}_6\text{H}_5\text{COC}_6\text{H}_5$ D) $(\text{CH}_3)_3\text{CCHO}$
88. **Maleic acid and Fumaric acid are the form of**
 A) Chain isomer B) Conformations C) Geometrical isomer D) optical isomer
89. **Which of the following will not react with ammonical solution of silver nitrate?**
 A) $\text{CH}_3\text{C}\equiv\text{CH}$ B) $\text{CH}_3\text{C}\equiv\text{CCH}_3$ C) $\text{CH}_3\text{CH}-\text{C}\equiv\text{CH}$ D) $\text{CH}\equiv\text{CH}$
90. **Ethene and ethyne can be distinguished by**
 A) Bromine water B) KMnO_4 solution
 C) cuprous chloride solution D) all of the above
91. **Which of the following has minimum boiling point?**
 A) n-butane B) 1-butyne C) 1-butene D) 1-isobutene
92. **Alkanes can be obtained from carboxylic acids by**
 A) toluen's reagent B) Decarboxylation
 C) Kolbe's electrolysis D) Clemmensen's reduction
93. **Elimination of bromine from 2-bromobutane results in the formation of**
 A) equimolar mixture of 1 and 2-butene B) predominantly 2-butene
 C) predominantly 1-butene D) predominantly 2-butyne
94. **Identify the correct order of reactivity in electrophilic substitution reactions of the following compounds.**
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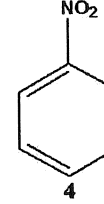
1



2



3



4
- A) 1>2>3>4 B) 4>3>2>1 C) 2>1>3>4 D) 2>3>1>4
95. **The $t_{1/2}$ of a reaction is doubled as the initial concentration of the reaction doubled. The order of reaction is.**
 A) 1 B) 0 C) 2 D) 1.5

96. For the propane-oxygen fuel cell the half-cell reactions are
$$\begin{array}{l} \text{C}_3\text{H}_8(\text{g}) + 6\text{H}_2\text{O}(\text{l}) \rightarrow 3\text{CO}_2(\text{g}) + 20\text{H}^+(\text{aq}) + 20\text{e}^- \\ 20\text{H}^+(\text{aq}) + 5\text{O}_2(\text{g}) \rightarrow 10\text{H}_2\text{O}(\text{l}) \end{array}$$
 $\Delta G = -2108 \text{ kJ mol}^{-1}$. The cell potential is
A) 1.09 V B) -1.09 V C) 1.86 V D) 10.9 V
97. For the overall cell reaction $\text{H}_2\text{PO}_3(\text{aq}) + 7\text{H}^+(\text{aq}) + 7\text{e}^- \rightarrow \text{PH}_3(\text{g}) + 3\text{H}_2\text{O}(\text{l})$, if pH is increased, then the cell potential.
A) Increases B) decreases C) remains constant D) first increases then decreases
98. In the lead-acid battery during charging, the cathode reaction is
A) Formation of PbSO_4 B) reduction of Pb^{2+} to Pb
C) formation of PbO_2 D) deposition of Pb at anode
99. The molecule which is IR-inactive but Raman-active is
A) HCl B) N_2 C) SO_2 D) proteins
100. Sample of few oils and fats are stored in a laboratory for performing a experiment. One of the containers did not have any lable. When tested analysed that unknown sample does not decolourize alkaline potassium permanganate solution. Sample could be
A) vanaspati ghee B) mustard oil C) linseedoil D) castor oil

KEY C-14							
Q.No.	Ans	Q.No.	Ans	Q.No.	Ans	Q.No.	Ans
1	B	26	B	51	A	76	C
2	A	27	D	52	A	77	A
3	D	28	D	53	B	78	B
4	C	29	A	54	C	79	B
5	A	30	B	55	A	80	C
6	C	31	A	56	A	81	B
7	D	32	C	57	C	82	C
8	B	33	B	58	D	83	C
9	D	34	C	59	B	84	C
10	B	35	D	60	A	85	B
11	B	36	A	61	A	86	A
12	B	37	D	62	C	87	B
13	A	38	C	63	A	88	C
14	A	39	B	64	B	89	B
15	D	40	A	65	A	90	C
16	C	41	D	66	D	91	A
17	C	42	B	67	D	92	C
18	A	43	B	68	A	93	B
19	B	44	C	69	D	94	C
20	A	45	D	70	D	95	B
21	B	46	C	71	A	96	A
22	C	47	A	72	A	97	B
23	C	48	B	73	D	98	B
24	A	49	D	74	D	99	B
25	C	50	A	75	D	100	A