STAFF SELECTION COMMISSION
COMBINED GRADUATE LEVEL
TIER-I PREVIOUS PAPER 2016

GENERAL INTELLIGENCE

1. Select the related letters from the given alternatives.

PZQW : NXOU : : FISK : ?

1) EFPJ   2) FERI   3) DGQI   4) HKVM

2. Select the related word pair from the given alternatives.

Head : Human Body : : ?

1) Arc : Circle   2) Cube : Circle   3) Square : Circle   4) Triangle : Circle

3. Select the related number from the given alternatives.

7 : 19 : : 10 : ?

1) 25   2) 30   3) 21   4) 23

4. Find the odd word from the given alternatives.

1) Bigger   2) Faster   3) Greater   4) Taller

5. Find the odd letters from the given alternatives.

1) AEIM   2) BFJN   3) CGKO   4) FDKN

6. Find the odd number pair from the given alternatives.

1) 140 → 45   2) 110 → 35   3) 100 → 30   4) 80 → 25

7. Arrange the following words as per order in the dictionary?

1. Forest   2. Fascinating   3. Fantastic   4. Fabulous

1) 2, 4, 3, 1   2) 4, 2, 3, 1   3) 4, 3, 2, 1   4) 2, 3, 4, 1

8. Which one set of letters when sequentially placed at the gaps in the given letter series shall complete it?

a_ca_c_dc_d_ad_

1) ddacdc   2) daadca   3) dadaac   4) ddaacc

9. Which number comes next in the series?

1, 5, 2, 6, 3, 7, ?

1) 6   2) 5   3) 4   4) 3

10. P and Q are sisters. R and S are brothers. P's daughter is R's sister. What is Q's relation to S?

1) Mother   2) Grandmother   3) Sister   4) Aunt

11. A man was 32 years of age when he had his first son. His wife was 35 years of age when his son attained the age of 7 years. The difference between the age of the father and mother is

1) 7 years   2) 3 years   3) 5 years   4) 4 years

12. From the given alternative words, select the word which cannot be formed using the letters of the given word

ANNOUNCEMENTS

1) CEMENT   2) NOUN   3) COUNTER   4) TENSE

13. If RATION is written as OXQFLK then LUMBER may be written as .....

1) KTLADQ   2) ITJABQ   3) OXPEHU   4) IRJYBO

14. A * B means multiply A by B; A@B means divide A by B; A ? B means add B to A and A = B means subtract B from A. Then find the value of 10*10 = 5*10 ? 50@10

1) 100   2) 45   3) 1000   4) 55

15. If 37 * 14 = −17,

69 * 33 = 34,

91 * 125 = 72

then what should be 28 * 56 = ?

1) 26   2) 42   3) 34   4) 28

16. Select the missing number from the given responses

21	56	70
45	87	84
115	180	?

1) 110   2) 120   3) 130   4) 140

17. P started walking from North to South. She turned right at right angle and then again right at right angle. In which direction was she ultimately walking?

1) North   2) East   3) South   4) West

18. Consider the given statements to be true and decide which of the given conclusions/ assumptions can definitely be drawn from the given statements:

Statements:

All states having dams face no water problem.
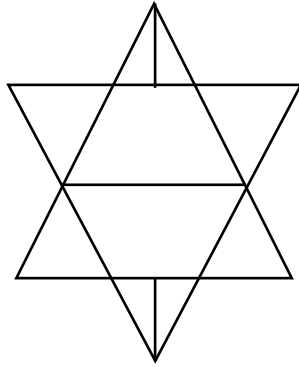
One of the states has no dam.

Conclusions:

I. It may be facing water problem.

II. Dams solve water problem.

1) Only Conclusion I follows

2) Only Conclusion II follows

3) Both Conclusion I and Conclusion II follows

4) Neither Conclusion I nor Conclusion II follows
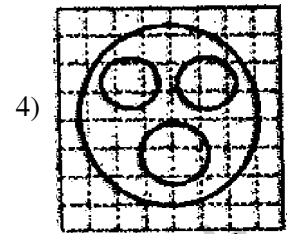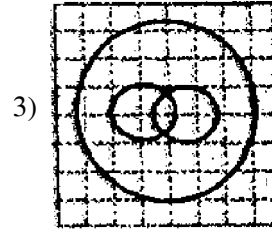
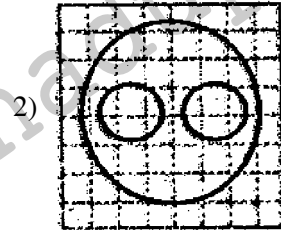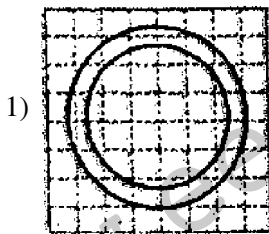**19.** How many triangles are there in this figure?

1) 10   2) 12   3) 14   4) 16

20. Which of the answer figures illustrates the relationship between:

Delhi, Sri Lanka, Asia

1)   2)   3)   4)

21. Which answer figure will complete the pattern in the question figure?

1)   2)

3)   4)
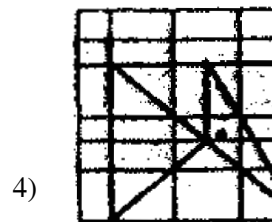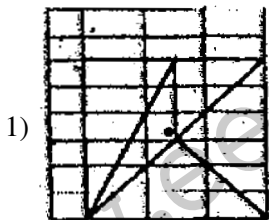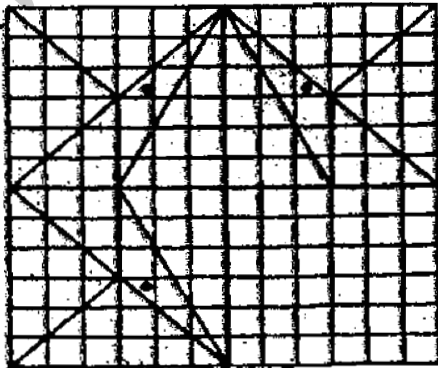
22. From the given answer figures, select the one in which the question figure is hidden/embedded
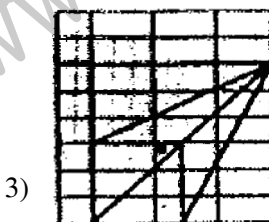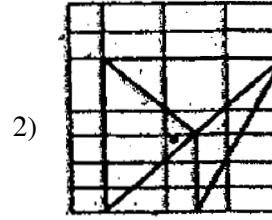

1)   2)   3)   4)
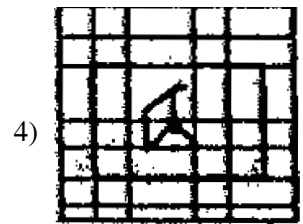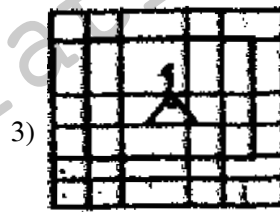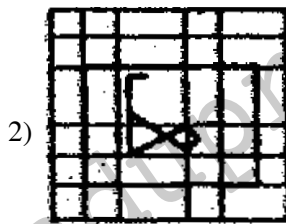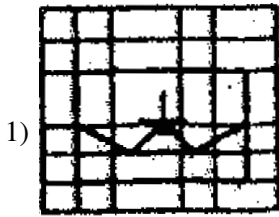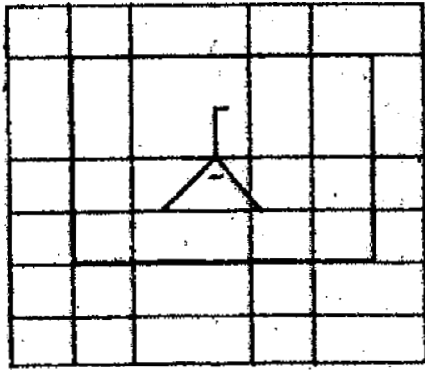
23. A piece of paper is folded and cut as shown below in the question figures. From the given answer figures, indicate how it will appear when opened.

1)   2)   3)   4)
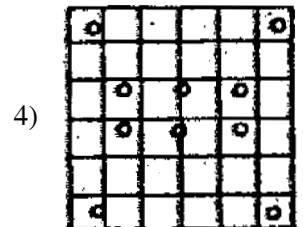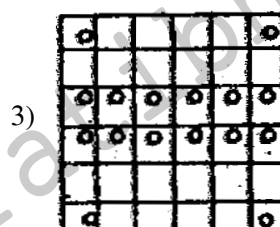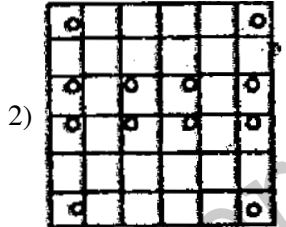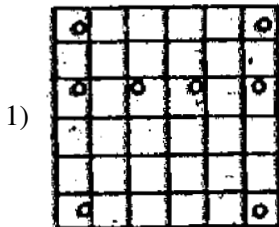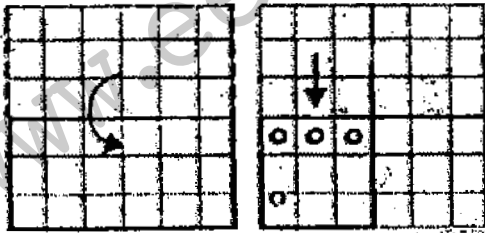
24. If a mirror is placed on the line MN, then which of the answer figures is the right image of the given figure?

1)   2)

3)   4)
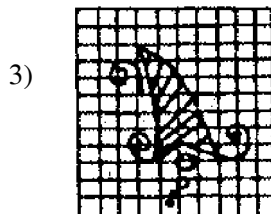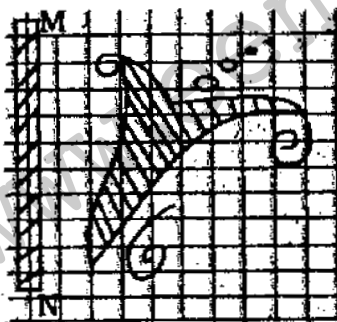
25. In this question, a word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as in two matrices given below. The columns and rows of Matrix I are numbered from 0 to 4 and that of Matrix II are numbered 5 to 9. A letter from these matrices can be represented first by its row and next by its column, e.g., 'A' can be represented by 03, 55, etc., and 'P' can be represented by 10, 99, etc. Similarly you have to identify the set for the word 'VENU'

Matrix-I

	0	1	2	3	4
0	K	G	E	A	S
1	P	V	H	R	Y
2	N	U	N	R	K
3	W	S	B	O	K
4	T	U	A	I	P

Matrix-II

	5	6	7	8	9
5	A	H	U	W	N
6	Y	R	B	T	V
7	O	I	H	B	Q
8	V	O	E	I	S
9	E	T	K	W	P

1) 69, 87, 32, 41   2) 85, 02, 20, 57   3) 11,95,89,57   5. 69,95,22,04

GENERAL AWARENESS

26. What is the phenomenon which established the transverse nature of light?

    1) Reflection   2) Interference   3) Diffraction   4) Polarisation

27. What is the name of a memory buffer used to accommodate a speed differential?

    1) Cache   2) Stack Pointer   3) Accumulator   4) Disc

28. What is contained in Chlorophyll?

    1) Sodium   2) Potassium   3) Manganese   4) Magnesium

29. Epigraphy is the study of which of the following?

    1) Coins   2) Inscriptions   3) Temples   4) Birds

30. Who won the Women's Singles Wimbledon Championship 2016?

    1) Angilique Ruber   2) Serena Williams

    3) Venus Williams   4) Steffi Graff

31. In which field is B.C Roy Award given?

    1) Music   2) Journalism   3) Medicine   4) Environment

32. What is Damodar valley Corporation?

    1) Statutory body

    2) Municipal Corporation looking after Damodar Valley

    3) A private enterprise located in Bihar

    4) A non government organisation

33. Which is the highest gallantry Award in India?

1) Vir Chakra

2) Param Vishist Seva Medal

3) Kirti Chakra

4) Param Vir Chakra

34. Who was recently appointed as the first woman president of Nepal?

1) Sita Subedi   2 Pampha Bhusal

3) Urmila Rana   4) Bidhya Devi Bhandari

35. In which field is pulitzer prize awarded for outstanding work?

1) Environment Study   2) Science and Technology

3) Literature and Journalism   4) International Understanding

36. Why is Carbon Monoxide a pollutant?

1) Reacts with haemoglobin   2) Makes nervous system inactive

3) It reacts with oxygen   4) It inhibits glycolysis

37. Why is Rann of Kutch of India famous for?

1) Tidal and flats   2) Fertile soil

3) Dense Vegetation   4) All are correct

38. Commercial banks lend to which of the following priority sectors?

1) Heavy Industries   2) Agriculture, Small Scale Industries

3) Foreign Companies   4) State Government in emergency situation

39. What is the accounting year of the Reserve Bank of India?

1) April-March   2) July-June

3) October-September   4) January-December

40. What is the position of the Earth when it is at the greatest distance from the sun?

1) Aphelion   2) Antipode   3) Perihelion   4) Aldiate

41. The biogas used for cooking is a mixture of which of the following?

1) Carbon dioxide and oxygen   2) Isobutance and Propane

3) Methane and carbon monoxide   4) Methane and carbon dioxide.

42. From the following, who was the first women speaker of Lok Sabha?

1) Sushma Swaraj   2) Margret Alva

3) Meera Kumar   4) Sarojini Naidu

43. Which of the following wind is blowing from the Mediterranean sea to the North Western parts of India?

1) Western disturbances   2) Norwesters

3) Loo   4) Mango showers

44. Azolla increases soil fertility for

1) maize cultivation 2) wheat cultivation

3) barley cultivation 4) rice cultivation

45. Which of the following is not provided in the constitution?

1) Election Commission 2) Finance Commission

3) Public Service Commission 4) Planning Commission

46. What is the popular name of Monolithic rock shrines at Mahabalipuram?

1) Rathas 2) Prasad 3) Mathika 4) Gandhakuti

47. What is the name of the device used to convert alternating current into direct current

1) Ammeter 2) Galvanometer 3) Rectifier 4) Transformer

48. Why does ice covered in sawdust not melt quickly?

1) Sawdust does not allow the air to touch the ice

2) The water is absorbed by sawdust

3) Sawdust is a bad conductor of heat

4) Sawdust is good conductor of heat

49. Which layer of the earth's atmosphere contains the ozone layer?

1) Troposphere 2) Mesosphere 3) Ionosphere 4) Stratospher

50. Where is the Great Barrier Reef located?

1) Pacific Ocean 2) Indian Ocean

3) Atlantic Ocean 4) Arctic Ocean

QUANTITATIVE APTITUDE

51. The sum of three consecutive natural numbers each divisible by 5, is 225. The largest among them is

1) 85 2) 75 3) 70 4) 80

52. A can do a piece of work in 18 days. He worked at it for 12 days and B finished the remaining work in 8 days. B alone can do the whole work in

1) 16 days 2) 24 days 3) 28 days 4) 29 days

53. The list price of an article is Rs. 900. It is available at two successive discounts of 20% and 10%. The selling price of the article is:

1) Rs. 640 2) Rs. 648 3) Rs. 540 4) Rs. 548

54. A man spends a part of his monthly income and saves the rest. The ratio of his expenditure to the savings is 61 : 6. If his monthly income is Rs. 8710, the amount of his monthly savings is

1) Rs. 870 2) Rs. 690 3) Rs. 980 4) Rs. 780

55. An article was sold at Rs. 950 allowing 5% discount on the marked price. The marked price of the article is

1) Rs. 960 2) Rs. 1000 3) Rs. 955 4) Rs. 945

56. A person loses 75% of his money in the first bet, 75% of the remaining in the second and 75% of the remaining in the third bet and returns home with Rs. 2 only. His initial money was

1) Rs. 64   2) Rs. 128   3) Rs. 256   4) Rs. 512

57. The time taken by a train 160 m long, running at 72 km/hr, in crossing an electric pole is

1) 8 seconds   2) 9 seconds   3) 6 seconds   4) 4 seconds

58. If $x + \dfrac{1}{9x} = 4$, then the value $9x^2 + \dfrac{1}{9x^2}$ is

1) 140   2) 142   3) 144   4) 146

59. If $a = 2$, $b = -3$ then the value of $27a^3 - 54a^2b + 36ab^2 - 8b^3$ is

1) 1562   2) 1616   3) 1676   4) 1728

60. Possible lengths of the three sides of a triangle are:

1) 2 cm, 3 cm and 6 cm   2) 3 cm, 4 cm and 5 cm

3) 2.5 cm, 3.5 cm and 6 cm   4) 4 cm, 4 cm and 9 cm

61. AD is the median of Δ ABC. If O is the centroid and AO=10 cm, then OD is

1) 5 cm   2) 20 cm   3) 10 cm   4) 30 cm

62. If in a triangle ABC, sin A= cos B, Then the value of cos C is

1) $\dfrac{\sqrt{3}}{2}$ 2) 0   3) 1   4) $\dfrac{1}{\sqrt{2}}$

63. Incentre of Δ ABC is I. $\angle$ABC=90° and $\angle$ACB=70°. $\angle$AIC is

1) 115°   2) 100°   3) 110°   4) 135°

64. The length of the two adjacent sides of a rectangle inscribed in a circle are 5 cm and 12 cm respectively. Then the radius of the circle will be

1) 6 cm   2) 6.5 cm   3) 8 cm   4) 8.5 cm

65. If $\sin \theta \times \cos \theta = \dfrac{1}{2}$. The value of $\sin\theta - \cos\theta$ is where $0° < 0 < 90°$

1) 0   2) $\sqrt{2}$ 3) 2   4) 1

66. The mean of 100 observations was calculated as 40. It was found later on that one of the observations was misread as 83 instead of 53. The correct mean is:

1) 39   2) 39.7   3) 40.3   4) 42.7

67. If $a^3 + \dfrac{1}{a^3} = 2$, then value of $\dfrac{a^2 + 1}{a}$ is (a is a positive number)

1) 1   2) 2   3) 3   4) 4

68. If $x\left(3 - \dfrac{2}{x}\right) = \dfrac{3}{x}$, then the value of $x^2 + \dfrac{1}{x^2}$ will be

1) $3\dfrac{1}{9}$ 2) $3\dfrac{2}{9}$ 3) $2\dfrac{1}{9}$ 4) $2\dfrac{4}{9}$

69. A sphere of radius 5 cm is melted to form a cone with base of same radius. The height (in cm) of the cone is

1) 5   2) 10   3) 20   4) 22

70. The difference between compound interest and simple interest on a certain sum of money for 2 years at 5% per annum is Rs. 41. What is the sum of money?

1) Rs. 7200   2) Rs. 9600   3) Rs. 16400   4) Rs. 8400

71. A man standing on the bank of river observes that the angle subtended by a tree on the opposite bank is 60°. When he retires 36 m From the bank, he finds that the angle is 30°. The breadth of the river is.

1) 15 metre   2) 18 metre   3) 16 metre   4) 11 metre

Directions (72–75): Study the bar-graph given below which shows the percent distribution of total expenditures of a company under various expenses and answer the questions.

72. The expenditure on the interest on loans is more than the expenditure on transport by

1) 5%   2) 10%   3) 40%   4) 30%

73. If The interest on loans amounted to Rs. 2.45 crores, then the total amount of expenditure on advertisement, taxes and research and development is

1) Rs. 7 crores   2) Rs. 4.2 crores   3) Rs. 5.4 crores   4) Rs. 3 crores

74. The ratio of the total expenditure on infrastructure and transport to the total expenditure on taxes and interest on loans is

1) 5 : 4   2) 8 : 7   3) 9 : 7   4) 13 : 11

75. If the total expenditure of the company is Rs. 20 crores, then the ratio of expenditure on transport to that on salary is

1) 5 : 4   2) 4 : 5   3) 5 : 8   4) 8 : 5

ENGLISH COMPREHENSION

76. In the following question, out of the four alternatives, choose the word which best expresses the meaning of the given word.

    ENIGMA

    1) Attractive   2) Riddle   3) Flare-up   4) Dream

77. In the following question, out of the four alternatives, choose the word which is opposite in meaning to the given word.

    INERTIA

    1) Stupor   2) Vigour   3) Languor   4) Inertness

78. Four words are given, out of which only one word is spelt correctly. Choose the correctly spelt word.

    1) Pious   2) Pios   3) Pieos   4) Piuos

Directions (79 – 81): In the following questions, one part of the sentence may have an error: Find out which part of the sentence has an error and choose the option corresponding to it. If the sentence is free from error, choose the "No error" option.

79. Each child (1)/ was given a (2) /red beautiful balloon. (3)/ No error (4)

80. She has had the best medical facilities available (1)/ but she will not be cured (2)/ unless she does not have a strong desire to live. (3)/ No error (4)

81. As if aware of my condition (1)/ the infuriated bird suddenly doubled back on its course (2) / and charged straight after me. (3)/ No error (4)

Directions (82–84): The sentences given with blanks are to be filled with an appropriate word (s). Four alternatives are suggested for each question. For each question, choose the correct alternative.

82. The passengers were afraid but the captain .... them that there was no danger.

    1) suggested   2) pleaded   3) advise   4) assured

83. I insisted .... his leaving the place.

    1) on   2) about   3) in   4) with

84. Please don't .... me when I'm speaking.

    1) interrupted   2) interrupts   3) interrupt   4) interrupting

Directions (85 – 87): In each of the questions, four alternatives are given for the Idiom/Phrase. Choose the alternative which best expresses the meaning of the Idiom/Phrase.

85. **Beat around the bush**

    1) Walk around the forest   2) Clean the bushy areas

    3) Avoiding the main topic   4) Play around the forest

86. **Make room**

    1) Clean the room   2) Make space

    3) Attain the room   4) Make a clean sweep

87. Mend your ways

    1) Happy with one's behaviour   2) Sad with one's behaviour

    3) Destroy one's behaviour   4) Improve one's behaviour

Directions (88 – 90): In the following questions, out of the four alternatives, choose the one which can be substituted for the given words/sentences.

88. A record of one's own life written by oneself

    1) History   2) Biography   3) Bibliography   4) Autobiography

89. Belong to the same period

    1) Comrades   2) Contemporaries

    3) Compromises   4) Renegades

90. One who listens secretly to private conversation

    1) Eavesdropper   2) Encroacher

    3) Eaves bearer   4) Listener

Directions (91 – 95): In each of the following questions, a sentence/ a part of the sentence is printed in bold. Four alternatives are given to the bold part which will improve the sentence. Choose the correct alternative corresponding to it. In case no improvement is needed, choose the option corresponding to "No improvement".

91. You must complete this work **up to Sunday**.

    1) within Sunday   2) by Sunday

    3) on to Sunday   4) No improvement

92. **Hole** wheat bread is good for health.

    1) Whole   2) Healthy   3) Holed   4) No improvement

93. She has no pen to **write**.

    1) write with   2) write at   3) write in   4) No improvement

94. He dislikes the word, **isn't he**?

    1) doesn't he?   2) didn't he?

    3) does he?   4) No improvement

95. He is one of **those who likes to help others**.

    1) those persons who like to help others

    2) those who like to help other

    3) those who like to help others

    4) No improvement

Directions (96 – 100): A passage is given with 5 questions following it. Read the passage carefully and choose the best answer to each question out of the four alternatives.

       Crude mineral oil comes out of the earth as a thick brown or black liquid with a strong smell. It is a complex mixture of many different substances, each with its own, individual qualities. Most of them are combinations of hydrogen and carbon in varying proportions. Such hydrocarbons are also found in other forms such as bitumen, asphalt and natural gas. Mineral oil originates from the carcasses of tiny animals and from plants that live in the sea. Over million of years, these dead creatures form large deposits under sea-bed and ocean currents cover them with a blanket of sand and silt. As this material hardens, it becomes sedimentary rock and effectively shuts out the oxygen, thus preventing the complete decomposition of the marine deposits underneath. The layers of sedimentary rocks become thicker, and heavier. Their pressure produces heat, which transforms the tiny carcasses into crude oil in a process that is still going on today.

96. How does crude oil come out of the earth?

1) Thick brown or black liquid with mild smell

2) Thick red brown liquid with strong smell

3) Mixture of different colours

4) Thick brown or black liquid with a strong smell

97. What is crude mineral oil?

1) Complex mixture of many different substances

2) Simple mixture of natural gas

3) Plain white oil

4) It is bitumen

98. From where does mineral oil originate?

1) Complex mixture of substances

2) Carcasses of tiny animals and plants that live in the sea

3) From lakes

4) Only from plants

99. The time taken for the marine deposits to harden into rocks is

1) a few centuries   2) millions of years

3) a few decades   4) thousands of years

100. Sedimentary rocks lead to the formation of oil deposits because

1) their pressure produces heat and turns deposits of animal carcasses and plants into oil.

2) it turns heavy and shuts out the oxygen

3) it becomes hard and forms into rocks to squeeze oil

4) it becomes light and soft and applies pressure to produce oil

ANSWERS

1–3; 2–1; 3–1; 4–2; 5–4; 6–3; 7–3; 8–4; 9–3; 10–4; 11–4; 12–3; 13–4; 14–4; 15–4; 16–3; 17–1; 18–3; 19–3; 20–2; 21–1; 22–4; 23–3; 24–1; 25–2; 26–4; 27–1; 28–4; 29–2; 30–2; 31–3; 32–1; 33–4; 34–4; 35–3; 36–1; 37–1; 38–2; 39–2; 40–1; 41–4; 42–3; 43–1; 44–4; 45–4; 46–1; 47–3; 48–3; 49–4; 50–1; 51–4; 52–2; 53–2; 54–4; 55–2; 56–2; 57–1; 58–2; 59–4; 60–2; 61–1; 62–2; 63–4; 64–2; 65–1; 66–2; 67–2; 68–4; 69–3; 70–3; 71–2; 72–3; 73–2; 74–4; 75–3; 76–2; 77–2; 78–1; 79–3; 80–3; 81–3; 82–4; 83–1; 84–3; 85–3; 86–2; 87–4; 88–4; 89–2; 90–1; 91–2; 92–1; 93–1; 94–1; 95–3; 96–4; 97–1; 98–2; 99–2; 100–1.