प्रश्न पत्रिका का नं./Question Booklet No. | प्रश्न पत्रिका का क्रम/Question Booklet Series | पता कोड/Paper Code
---|---|---
A | | 1498

प्रश्न पत्र / QUESTION PAPER
बेकाबू प्रश्न पत्र/OBJECTIVE(MCQ) TYPE TEST
समय/Time : 2.30 PM to 4.30 PM
अवधि/Duration : 2 Hrs
अधिकारी अंक/Maximum Marks : 100

अनुक्रमकः
रोल नं.:
परीक्षा का तिथि/Date of Examination (dd/mm/yyyy):
अन्वेषण का बालस्वरूप :
विद्यार्थी का नाम :
न्यिरीक्षक का स्वरूप :
विद्यार्थी का संबंध/No of Question
भाषा/PART | विषय/SUBJECT | प्रश्न की संख्या/No of Question
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भाषा A/Part A | सामाजिक विज्ञान & गणितीय अभियान्ता/General Science & Quantitative Aptitude | 20 प्रश्न/20 Questions
भाषा B/Part B | सांगत ट्रेड के सिलारस में प्रश्न/Questions from the Syllabus of relevant trade | 80 प्रश्न/80 Questions

निर्देश :
1. OMR उपकरण के अनुसार प्रश्न पत्र के बाकी OMR उपकरण के निर्देश को सही प्रवर्तन करें।
2. OMR का कार्यक्रम विस्तार करें।
3. प्रश्न पत्र के अनुसार प्रश्न का जवाब करें।
4. प्रश्न पत्र के अनुसार प्रश्न का जवाब करें।
5. प्रश्न पत्र के अनुसार प्रश्न का जवाब करें।
6. प्रश्न पत्र के अनुसार प्रश्न का जवाब करें।
7. प्रश्न पत्र के अनुसार प्रश्न का जवाब करें।
8. प्रश्न पत्र के अनुसार प्रश्न का जवाब करें।

प्रश्न पत्र की शिर्षी के मैं, अंग्रेज़ी कथन ही माना गया।
In case of any dispute, English version will prevail.
GENERAL APTITUDE

1. How does light normally travel?
   A) In concentric circles       B) In a straight line
   C) Always towards a dark area  D) In a curved line

2. First Country to undergo industrial revolution:
   A) France       B) Britain
   C) Germany     D) USA

3. A solar water heater cannot be used to get hot water on:
   A) A sunny day       B) A cloudy day
   C) A hot day        D) A windy day

4. In India, the first cotton mill was set up in:
   A) Madras       B) Bombay
   C) Kanpur     D) Surat

5. Regur soil is the other name of:
   A) Black soil       B) Alluvial soil
   C) Arid soil     D) Laterite soil

6. The different group of stars is known as:
   A) Constellations       B) Celestial bodies
   C) Asteroids        D) Comet

7. Which country has two-party system?
   A) India       B) Sri Lanka
   C) United Kingdom     D) Nepal

8. Which of the following is a macro nutrient?
   A) Mn       B) Mg
   C) Cu     D) Zn

9. The process of evaporation causes:
   A) Cooling       B) Heating
   C) Dryness     D) None of these

10. Place directly above focus on Earth's surface is known as:
    A) Strike       B) Comma
    C) Epicenter     D) Origin

11. HCF of 84 & 270 is:
    A) 8       B) 6
    C) 4     D) 2

12. The sum of first five multiples of 3 is:
    A) 45       B) 65
    C) 75     D) 90

13. 7 : 12 is equivalent to:
    A) 28 : 40       B) 42 : 71
    C) 72 : 42     D) 42 : 72

14. Find the simple interest on the Rs. 2000 at 25/4% per annum for the period from 4th Feb 2005 to 18th April 2005
    A) Rs. 35       B) Rs. 30
    C) Rs. 25     D) Rs. 40

15. The average of 20 numbers is Zero. Of them, at the most, how many may be greater than zero?
    A) 0       B) 1
    C) 10     D) 19

16. An athlete runs 200 meters in 24 seconds. His speed is:
    A) 10 km/hr       B) 17 km/hr
    C) 27 km/hr     D) 30 km/hr
17. Every rational number is
   A) A natural number  B) An integer  C) A real number  D) A whole number

18. What decimal of an hour is a second?
   A) .0025  B) .0256  C) .00027  D) .000126

19. A fruit seller had some apples. He sells 40% apples and still has 420 apples. Originally, he had how many?
   A) 588 apples  B) 600 apples  C) 672 apples  D) 700 apples

20. A does a work in 10 days and B does the same work in 15 days. In how many days they will do the same work together?
   A) 5 days  B) 6 days  C) 7 days  D) 8 days

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**DOMAIN KNOWLEDGE**

21. In which of the following forging operation no special die is used?
   A) Drop forging  B) Smith forging  C) Coining  D) Press forging

22. In which of the following forging operation repeated hammering and closed die is used?
   A) Drop forging  B) Smith forging  C) Coining  D) Press forging

23. In which of the following forging operation instead of repeated hammering gradual force is applied?
   A) Drop forging  B) Smith forging  C) Coining  D) Press forging

24. Coining and forming are two special kind of which forging operation?
   A) Upset  B) Press  C) Hubbing  D) Swaging

25. Which of the following forging operation is used for parts having uniform cross section?
   A) Upset  B) Press  C) Hubbing  D) Swaging

26. In which of the following technique shaping of cross section of tubes or rods is done by means of repeated impacts or blows?
   A) Upset  B) Press  C) Hubbing  D) Swaging

27. Heading is a kind of which forging operation?
   A) Piercing  B) Embossing  C) Upsetting  D) Coining

28. In heading to avoid buckling the length to diameter ratio should be?
   A) 1:3  B) 2:3  C) 3:1  D) 2:1

29. Which operation is used in making raised figures on sheets with its corresponding relief on the other side?
   A) Roll forging  B) Embossing  C) Coining  D) Heading

30. Which of the following operation is used to make ball bearing?
   A) Skew rolling  B) Roll forging  C) Press forging  D) Upsetting
31. In which forging process cross section of a bar is reduced or shaped by passing it through a pair of rolls with shaped grooves?  
   A) Skew rolling  B) Roll forging  C) Press forging  D) Upsetting

32. In which of the following process a hardened punch is pressed into the surface of a block metal?  
   A) Upset  B) Press  C) Hubbing  D) Swaging

33. Which of the following statement is not correct about coining process?  
   A) It is a closed die forging process  B) It is used in minting of coin, jewellery etc.  
   C) Lubrication is not used  D) None of the Mentioned

34. In which of the following process radial movement of shaped die occur?  
   A) Upset  B) Press  C) Hubbing  D) Swaging

35. In which process surface is intended with a punch in order to produce a cavity or an impression?  
   A) Heading  B) Hubbing  C) Piercing  D) Swaging

36. Which defect occurs in drop forging due to incorrectly aligned dies?  
   A) Miss match  B) Misrun  C) Swell  D) Cold shut

37. If scales are not removed from dies then which of the following defects occur?  
   A) Miss match  B) Scale pits  C) Swell  D) Cold shut

38. Which of the following defects results due to improper forging?  
   A) Seams  B) Cracks  C) Laps  D) All of the above

39. To remove the scales after forging operation which of the following cleaning operation is done?  
   A) Pickling in acid  B) Shot peening  C) Both (A) and (B)  D) None of the above

40. Edging and fullering operation is not used in which of the following operation?  
   A) Drop forging  B) Smith forging  C) Coining  D) Press forging

41. Shaping of metal by squeezing them in between two or more dies in order to obtain desire shape is done by?  
   A) Forming  B) Forging  C) Welding  D) Grinding

42. Forging is carried out at which temperature?  
   A) Below re-crystallization temperature  B) Above re-crystallization temperature  
   C) Both (A) and (B)  D) None of these

43. Which of the following is a type of forging?  
   A) Open die  B) Closed die  C) Impression dies  D) All of the Mentioned

44. In which of the following forging metal is kept in the lower die?  
   A) Open die  B) Closed die  C) Impression dies  D) None of these

45. In which of the forging process metal is kept in between pair of dies and a gutter is provided in the lower die?  
   A) Open die  B) Closed die  C) Impression dies  D) None of these

46. In which of the forging process metal is kept in between pair of dies and no gutter is provided in the lower die?  
   A) Open die  B) Closed die  C) Impression dies  D) None of these
47. The extra metal which settles down in the gutter is known as?
A) Flash       B) Slag       C) Flux       D) Barrelling

48. In which of the following forging process no flash is formed?
A) Open die   B) Closed die  C) Impression dies   D) None of these

49. In which of the following forging process poor material utilization occurs?
A) Open die   B) Closed die  C) Impression dies   D) None of these

50. Cogging which is also called as drawing out, is basically an?
A) Open die forging operation   B) Closed die forging operation
C) Impression dies forging operation   D) None of these

51. In rolling operation the roll rotate with surface velocity
A) exceeding the speed of incoming metal   B) lower than the speed of incoming metal
C) equal to speed of the incoming metal   D) none of the mentioned

52. In ________ extrusion, a billet is placed in a chamber.
A) Forward   B) Indirect   C) Hydrostatic   D) None of these

53. In ________ extrusion, the die moves toward the unextruded billet.
A) Forward   B) Indirect   C) Hydrostatic   D) None of these

54. In ________ extrusion, the billet is smaller in diameter than the chamber.
A) Forward   B) Indirect   C) Hydrostatic   D) None of these

55. Which of the following properties is not improved by hot forging?
A) Elastic limit   B) Work hardening   C) Ultimate tensile strength   D) Britteness

56. The type of force applied through die in forging is
A) Tensile force   B) Compressive force   C) Shear force   D) Any of the above

57. The suitable temperature range for forging steel with carbon content 0.7% is
A) 800 – 950°C   B) 1000 – 1150°C   C) 1100 – 1250°C   D) 1300 – 1450°C

58. Hot forging of a metal is caused out at
A) Melting point   B) Above recrystallization temperature
C) Below recrystallization temperature   D) At recrystallization temperature

59. Which of the following open die forging operation reduces the height of a forging and increases its diameter?
A) Cogging   B) Upsetting   C) Expanding   D) Hollow forging

60. The term applied to the first operation in an impression die forging is called
A) Fullering   B) Blocking   C) Trimming   D) Coining

61. The material which is squeezed out between the faces of the dies is known as
A) Slag   B) Flash   C) Scale   D) Misrun

62. The following hammers are used for impression die forgings
i. gravity drop hammer   ii. Steam hammer   iii. Air lift hammer
A) only i   B) i & ii   C) i & iii   D) i, ii & iii
63. The machining allowances for forging varies from small to large forging as
   A) 0.50 mm to 1.1 mm   B) 0.75 mm to 1.4 mm   C) 1 mm to 1.9 mm   D) 1.4 mm to 2.3 mm

64. Bolts are produced by
   A) Upset forging   B) Hammer forging   C) Press forging   D) Hot bar forging

65. The screw type mechanical press is used for the forging of
   A) Steel   B) Copper   C) Brass   D) Aluminium

66. A die is used in
   A) casting process   B) forging process   C) extrusion process   D) all of these

67. The material which is squeezed out between the faces of the dies is known as
   A) Misrun   B) Hot short   C) Laps   D) Segregation

68. To remove scale on forging, which of the following operations are used?
   A) pickling in acid, tumbling, trimming   B) pickling in acid, tumbling, shot peening
   C) tumbling, shot peening, trimming   D) pickling in acid, shot peening, trimming

69. Which of the following are ingot defects?
   A) pipes, cracks, scabs   B) burnt metal, decarburized steel, flakes
   C) seams, cracks, laps   D) dirt, slag, blow holes

70. Which of the following defect in forging is not due to melting practice?
   A) dirt   B) slag   C) blow hole   D) seams

71. Which of the following is hardest constituent of steel?
   A) Ludeburite   B) Austenite   C) Bainite   D) Martensite

72. α-iron is obtained below which of the following given temperature in centigrade?
   A) 1539   B) 768   C) 910   D) 1410

73. δ-iron is obtained above which of the following given temperature in centigrade?
   A) 1539   B) 768   C) 910   D) 1410

74. γ-iron is obtained above which of the following given temperature in centigrade?
   A) 1539   B) 768   C) 910   D) 1410

75. Which of the following structure of steel is non magnetic in nature?
   A) α   B) δ   C) γ   D) None of the mentioned

76. Annealing of steel is done to impart which one of the following property on steel?
   A) Hardness   B) Toughness   C) Ductility   D) None of the mentioned

77. In Annealing cooling is done in which of the following medium?
   A) Air   B) Water   C) Oil   D) Furnace

78. In Normalizing cooling is done in which of the following medium?
   A) Air   B) Water   C) Oil   D) Furnace
79. Mild steel can be converted into high carbon steel by using which of the following process?
   A) Annealing      B) Normalizing      C) Case hardening      D) None of the mentioned

80. Hypoeutectoid steels on cooling during annealing process converts to:
   A) Pearlite    B) Cementite   C) Austenite     D) None of the mentioned

81. Melting point of iron in degree centigrade is equal to
   A) 768    B) 1535   C) 1410     D) 910

82. Iron carbon phase diagram is
   A) Unary phase    B) Binary phase   C) Tertiary phase     D) None of the mentioned

83. Peritectic reaction in iron carbon diagram takes place at temperature (in degree centigrade) is
   A) 1539    B) 1493   C) 910     D) 1175

84. Eutectic reaction in iron carbon diagram takes place at temperature (in degree centigrade) is
   A) 1539    B) 1493   C) 910     D) 1150

85. Eutectoid reaction in iron carbon diagram takes place at temperature (in degree centigrade) is
   A) 1120    B) 725   C) 910     D) 820

86. Percentage of carbon at eutectic point is equal to
   A) 2.1    B) 4.3   C) 0.83     D) 0.02

87. Percentage of carbon at eutectoid point is equal to
   A) 2.1    B) 4.3   C) 0.83     D) 0.02

88. Percentage of carbon at peritectic point is equal to
   A) 2.1    B) 4.3   C) 0.83     D) 0.18

89. In which of the following reaction in iron carbon diagram no mushy zone is obtained?
   A) Eutectic reaction    B) Peritectic reaction   C) Eutectoid reaction     D) Peritectoid reaction

90. γ form of iron has which of the following property?
   A) Magnetic    B) Non magnetic   C) Occurs below 768 degree centigrade     D) Occurs above 1410 degree centigrade

91. Pig iron can be easily obtained by processing of iron ore in:
   A) Cupola    B) Bessemer converter   C) Open hearth furnace     D) Blast furnace

92. Cast iron can be easily obtained in:
   A) Cupola    B) Bessemer converter   C) Open hearth furnace     D) Blast furnace

93. Wrought iron can be easily obtained by processing iron ore in:
   A) Cupola    B) Bessemer converter   C) Pudding furnace     D) Blast furnace

94. Steel can be easily obtained in:
   A) Cupola    B) Blast furnace   C) Pudding furnace     D) Bessemer converter

95. Red hardness of an alloy steel can be improved using
   A) Tungsten    B) Vanadium   C) Manganese     D) Titanium
96. Abrasion resistance of an alloy steel can be improved using
   A) Tungsten    B) Vanadium    C) Manganese    D) Titanium

97. Wear resistance of an alloy steel can be improved using
   A) Tungsten    B) Vanadium    C) Manganese    D) Titanium

98. Corrosion resistance of an alloy steel can be improved using
   A) Tungsten    B) Vanadium    C) Chromium    D) Titanium

99. Tensile strength of an alloy steel can be improved using
    A) Nickel      B) Vanadium    C) Manganese    D) Titanium

100. Which of the following induces fine grain distribution in alloy steel?
    A) Nickel      B) Vanadium    C) Manganese    D) Titanium