

BOOKLET NO.

336

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO

TBC : AKG-AP-MECH. ENGG.-17

Time Allowed : 2 Hours]

[Maximum Marks : 100

INSTRUCTIONS

1. **IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS BOOKLET DOES NOT HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.**
2. You have to enter your Roll Number on the Test Booklet in the Box provided alongside. **DO NOT** write **anything** else on the Test Booklet.
3. This Test Booklet contains **100** items (questions). You will select the response which you want to mark on the Answer Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose **ONLY ONE** response for each item.
4. You have to mark all your responses **ONLY** on the separate Answer Sheet provided. No erasing/correction fluid is allowed.
5. All items carry equal marks.
6. Before you proceed to mark in the Answer Sheet the response to various items in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per instructions sent to you with your Admission Certificate.
7. After you have completed filling in all your responses on the Answer Sheet and the examination has concluded, you should hand over to the Invigilator **only the Answer Sheet**. You are permitted to take away with you the Test Booklet.
8. Sheets for rough work are appended in the Test Booklet at the end.
9. **Penalty for wrong answers :**
THERE WILL BE PENALTY (NEGATIVE MARKING) FOR WRONG ANSWERS MARKED BY A CANDIDATE IN THE OBJECTIVE TYPE QUESTION PAPERS.
 - (i) There are four alternatives for the answers to every question. For each question for which a wrong answer has been given by the candidate, **one fourth (0.25)** of the marks assigned to that question will be deducted as penalty.
 - (ii) If a candidate gives more than one answer, it will be treated as a **wrong answer** even if one of the given answer happen to be correct and there will be same penalty as above for that question.
 - (iii) If a question is left blank i.e. no answer is given by the candidate, there will be **no penalty** for that question.
10. Use and carrying of Mobile Phone and Electronic Gadget is prohibited in Examination Hall.

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO

1. In system A vapour are superheated by 10°C in the evaporator while in system B vapour are superheated by 10°C in a liquid vapour regenerative heat exchanger, other conditions being the same. Then :
 - (A) COP of A = COP of B
 - (B) COP of both A and B > COP of Reversed Carnot Cycle
 - (C) COP of A > COP of B
 - (D) COP of A < COP of B

2. An aluminium bar ($E = 72 \text{ GPa}$, $\nu = 0.33$) of diameter 50 mm cannot exceed a diameter of 50.1 mm when compressed by axial force P. The maximum acceptable compressive load P is approximately:
 - (A) 190 kN
 - (B) 200 kN
 - (C) 470 kN
 - (D) 860 kN

3. The gage pressure reading on an automobile tire is 240 kPa when the tire temperature is -30°C . The automobile is driven to a warmer climate and the tire temperature increases to 65°C . Assume the mass and the volume do not change. Then, estimate the gage pressure in the tire :
 - (A) 480.5 kPa
 - (B) 333.8 kPa
 - (C) 320.4 kPa
 - (D) 280.6 kPa

4. The frictional torque transmitted by a cone clutch is same as that of :
 - (A) Flat pivot bearing
 - (B) Conical pivot bearing
 - (C) Flat collar bearing
 - (D) Trapezoidal pivot bearing

5. An instrument to study the behaviour of moulding sand at high temperature :

- (A) Dilatometer
- (B) Pointometer
- (C) Cinometer
- (D) None of the above

6. During which of the following process does heat rejection take place in Carnot vapour cycle ?

- (A) Constant volume
- (B) Constant temperature
- (C) Constant pressure
- (D) Constant entropy

7. A cast iron designated by FG300 is :

- (A) grey cast iron with carbon content of 3%
- (B) grey cast iron with ultimate tensile strength of 300 N/mm^2
- (C) grey cast iron with ultimate compressive strength of 300 N/mm^2
- (D) grey cast iron with tensile yield strength of 300 N/mm^2

8. If the primal has an unbounded solution, then the dual has :

- (A) Optimal solution
- (B) No solution
- (C) Bound solution
- (D) None of the above

9. Which one of the following automobile exhaust gas pollutants is a major cause of photochemical smog ?

- (A) CO
- (B) HC
- (C) NO_x
- (D) SO_x

10. In steady state conduction with thermal conductivity given by $k = k_0 (1 + \beta T)$ where β , is +ve, a slab of given thickness and given temperature drop will conduct :

- (A) more heat at lower temperature levels
- (B) more heat at higher temperature levels
- (C) will be the same as flow depends on the temperature drop
- (D) will be the same as flow depends on the thickness only

11. Pascal law is applicable when :

- (A) fluid is at rest
- (B) fluid is in motion
- (C) fluid is compressible
- (D) fluid is incompressible

12. Which of the following refrigerants has the maximum ozone depletion in the stratosphere ?

- (A) Ammonia
- (B) Carbon dioxide
- (C) Sulphur dioxide
- (D) Fluorine

13. A copper tube with wall thickness of 8 mm must carry an axial tensile force of 175 kN. The allowable tensile stress is 90 MPa. The minimum required outer diameter is approximately :

- (A) 60 mm
- (B) 72 mm
- (C) 85 mm
- (D) 93 mm

14. Air is compressed in a cylinder such that the volume changes from 0.2 to 0.02 m³. The initial pressure is 200 kPa. If the pressure is constant, the work is nearest :

- (A) -36 kJ
- (B) -40 kJ
- (C) -46 kJ
- (D) -52 kJ

15. In a screw jack, the effort required to lift the load W is given by (where α = Helix angle, and ϕ = Angle of friction) :

- (A) $P = W \tan (\alpha - \phi)$
- (B) $P = W \cos (\alpha - \phi)$
- (C) $P = W \tan (\alpha + \phi)$
- (D) $P = W \cos (\alpha + \phi)$

16. A casting defect which results in general enlargement of casting is known as :

- (A) Shift
- (B) Sand wash
- (C) Swell
- (D) Scab

17. In a steam power plant, the ratio of the isentropic heat drop in the prime mover to the amount of heat supplied per unit mass of steam is known as :

- (A) Stage efficiency
- (B) Degree of reaction
- (C) Rankine efficiency
- (D) Relative efficiency

18. The tolerance of grade 6 is obtained by :
- (A) Die casting
 - (B) Grinding
 - (C) Turning on capstan and turret lathes
 - (D) Sand casting
19. The following statement applies to both transportation model and assignment model :
- (A) The inequalities of both problems are related to one type of resource
 - (B) Both use VAM for getting basic feasible solution
 - (C) Both are tested by MODI method for optimality
 - (D) Both have objective function, structural constraint and non-negativity constraints
20. Which one of the following is the *correct* sequence of the position of the given components in a turboprop ?
- (A) Propeller, Compressor, Turbine, Burner
 - (B) Compressor, Propeller, Burner, Turbine
 - (C) Propeller, Compressor, Burner, Turbine
 - (D) Compressor, Propeller, Turbine, Burner
21. The most effective way to reduce the temperature drop in a heat generating solid is to :
- (A) reduce the linear dimension
 - (B) reduce the thermal conductivity
 - (C) reduce the convection coefficient on the surface
 - (D) reduce the heat generation rate.

22. Cavitation *cannot* occur in :

- (A) Francis turbine
- (B) Centrifugal pump
- (C) Piston pump
- (D) Pelton wheel

23. Distortion energy theory of failure

is applicable to :

- (A) components made of plain carbon steel
- (B) components made of composites
- (C) components made of cast iron
- (D) components made of non-metals

24. To solve degeneracy in the transportation problem we have to :

- (A) Put allocation in one of the empty cells as zero
- (B) Put a small element epsilon in any one of the empty cells
- (C) Allocate the smallest element epsilon in such a cell, which will not form a closed loop with other loaded cells
- (D) Allocate the smallest element epsilon in such a cell, which will form a closed loop with other loaded cells

25. The essential function of the carburettor in a spark ignition engine is to :

- (A) Meter the fuel into air stream and amount dictated by the load and speed
- (B) Bring about mixing of air and fuel to get a homogeneous mixture
- (C) Vaporise the fuel
- (D) Distribute fuel uniformly to all cylinders in a multi-cylinder engine and also vaporise it

26. If a square section fin is split longitudinally and used as two fins :

- (A) The total heat flow will decrease
- (B) The total heat flow will increase
- (C) The total heat flow will remain constant
- (D) Heat flow may increase or decrease depending on the material used

27. Bernoulli's equation is derived based on the following assumptions :

- (A) Flow is incompressible, steady and irrotational
- (B) Flow is steady, compressible and irrotational
- (C) Flow is steady, incompressible and rotational
- (D) Flow is unsteady, incompressible and irrotational

28. Roots blower is an example of :

- (A) Reciprocating (positive displacement) compressor
- (B) Rotary (positive displacement) compressor
- (C) Centrifugal compressor
- (D) Axial compressor

29. A nylon bar ($E = 2.1 \text{ GPa}$) with diameter 12 mm, length 4.5 m, and weight 5.6 N hangs vertically under its own weight. The elongation of the bar at its free end is approximately :

- (A) 0.05 mm
- (B) 0.07 mm
- (C) 0.11 mm
- (D) 0.17 mm

30. Which of the following does *not* transfer work to or from a system ?

- (A) A moving piston
- (B) The expanding membrane of a balloon
- (C) An electrical resistance heater
- (D) A membrane that bursts

31. The centrifugal tension in belts :

- (A) increases power transmitted
- (B) decreases power transmitted
- (C) have no effect on the power transmitted
- (D) increases power transmitted unto a certain speed and then decreases

32. The size of lathe is specified by :

- (A) Height of the centers from ground
- (B) Swing of lathe
- (C) Tool post of the lathe
- (D) Weight of the lathe

33. In aircraft, air refrigeration cycle is used because of :
- (A) Low unit weight per tonne of refrigeration
 - (B) High heat transfer rate
 - (C) Lower temperature at high-altitudes
 - (D) Higher coefficient of performance
34. A copper bar ($d = 10$ mm, $E = 110$ GPa) is loaded by tensile load $P = 11.5$ kN. The maximum shear stress in the bar is approximately :
- (A) 73 MPa
 - (B) 87 MPa
 - (C) 145 MPa
 - (D) 150 MPa
35. Energy is added to 5 kg of air with a paddle wheel until $\Delta T = 100^\circ\text{C}$. Find the paddle wheel work if the rigid container is insulated :
- (A) -358 kJ
 - (B) -382 kJ
 - (C) $+358$ kJ
 - (D) $+382$ kJ
36. Law of gearing is satisfied, if :
- (A) two surfaces slide smoothly
 - (B) common normal at the point of contact passes through the pitch point on the line joining the centres of rotation
 - (C) number of teeth = P.C.D./module
 - (D) addendum is greater than dedendum

37. During solidification of an alloy when a mixture of solid and liquid metals is present, the solid-liquid mixture is referred to as which one of the following :

- (A) eutectic composition
- (B) ingot segregation
- (C) liquidus
- (D) mushy zone

38. In thermal power plants, the deaerator is used mainly to :

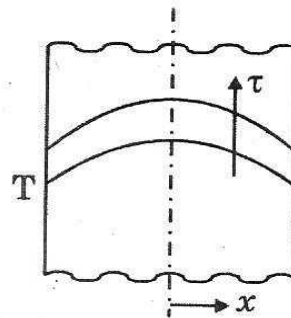
- (A) Remove air from condenser
- (B) Reduce steam pressure
- (C) Increase feed water temperature
- (D) Remove dissolved gases from feed water

39. Which of the following liquids is classified as Newtonian fluid ?

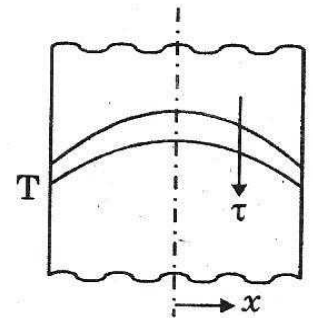
- (A) Honey
- (B) Petrol
- (C) Glycerine
- (D) Paint

40. Match the figures and the statements under transient conditions :

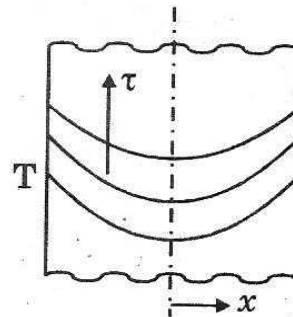
Figures :



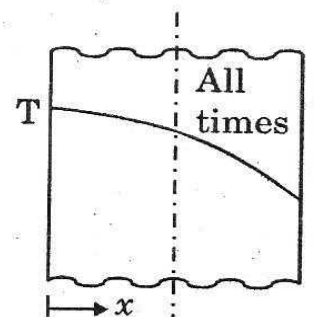
(P)



(Q)



(R)



(S)

Statements :

- (1) Cooling
- (2) Heating
- (3) Steady state
- (4) Heat generation.

- (A) 1-Q, 2-R, 3-S, 4-P
- (B) 2-Q, 1-R, 3-S, 4-P
- (C) 3-Q, 2-R, 1-S, 4-P
- (D) 1-Q, 2-R, 4-S, 3-P

41. In the operation of four-stroke diesel engines, the term 'squish' refers to the :

- (A) Injection of fuel in the pre-combustion chamber
- (B) Discharge of gases from the pre-combustion chamber
- (C) Entry of air into the combustion chamber
- (D) Stripping of fuel from the core

42. The assumption made in sequencing problems i.e. No passing rule means :

- (A) A job once loaded on a machine should not be removed until it is completed
- (B) A job cannot be processed on second machine unless it is processed on first machine
- (C) A machine should not be started unless the other is ready to start
- (D) No job should be processed unless all other machines are kept ready to start

43. The factor of safety for machine parts subjected to reversed stresses is :

- (A) ratio of yield strength to maximum stress
- (B) ratio of endurance limit to amplitude stress
- (C) ratio of ultimate tensile strength to maximum stress
- (D) ratio of endurance limit to mean stress

44. In a cooling tower, the minimum temperature to which water can be cooled is equal to the :

- (A) dew point temperature of the air at the inlet
- (B) dry bulb temperature of the air at the inlet
- (C) thermodynamic wet bulb temperature of the air at the inlet
- (D) mean of the dew point and dry bulb temperature of the air at the inlet

45. A rectangular plate in plane stress is subjected to normal stresses $\sigma_x = 35$ MPa; $\sigma_y = 26$ MPa, and shear stress $\tau_{xy} = 14$ MPa. The ratio of the magnitudes of the principal stresses (σ_1/σ_2) is approximately :
- (A) 0.8
 - (B) 1.5
 - (C) 2.1
 - (D) 2.9
46. An inventor claims a thermal engine operates between ocean layers at 27°C and 10°C . It produces 10 kW and discharges 9900 kJ/min. Such an engine is :
- (A) Impossible
 - (B) Reversible
 - (C) Possible
 - (D) Probable
47. A differential gear in automobiles is used to :
- (A) Reduce speed
 - (B) Assist in changing speed
 - (C) Provide jerk-free movement of vehicle
 - (D) Help in turning
48. A block of length 200 mm is machined by a slab milling cutter 34 mm in diameter. The depth of cut and table feed are set at 2 mm and 18 mm/minute, respectively. Considering the approach and the over travel of the cutter to be same, the minimum estimated machining time (minutes) per pass is :
- (A) 12
 - (B) 10
 - (C) 11
 - (D) 15

49. Boiler rating is usually defined in terms of :
- (A) Maximum temperature of steam in Kelvin
 - (B) Heat transfer rate in kJ/hr
 - (C) Heat transfer area in metre²
 - (D) Steam output in kg/hr
50. The connecting rod bolts of internal combustion engines have their shank diameter reduced at some places along the length in order to :
- (A) reduce weight
 - (B) reduce inertia forces
 - (C) increase shock absorbing capacity
 - (D) none of the above
51. We can reduce the materials cost by :
- (A) Using systematic inventory control techniques
 - (B) Using the cheap material
 - (C) Reducing the use of materials
 - (D) Making hand to mouth purchase
52. The convective heat transfer coefficient in laminar flow over a flat plate :
- (A) increases if a lighter fluid is used
 - (B) increases if a higher viscosity fluid is used
 - (C) increases if higher velocities are used
 - (D) increases with distance
53. The density of a liquid is 1000 kg/m³. At location where $g = 5 \text{ m/s}^2$, the specific weight of the liquid will be :
- (A) 200 N/m³
 - (B) $5000 \times 9.81/5 \text{ N/m}^3$
 - (C) 5000 N/m³
 - (D) $5000 \times 5/9.81 \text{ N/m}^3$
54. If coefficient of contraction at the vena contracta is equal to 0.62, then what will be the dynamic loss coefficient in sudden contraction in air-conditioning duct ?
- (A) 0.25
 - (B) 0.375
 - (C) 0.55
 - (D) 0.65

55. The ratio of lateral strain to linear strain is known as :

- (A) Modulus of elasticity
- (B) Modulus of rigidity
- (C) Poisson's ratio
- (D) Elastic limit

56. Which of the following second law statements is *incorrect* ?

- (A) The entropy of an isolated system must remain constant or increase.
- (B) The entropy of a hot copper block decreases as it cools.
- (C) If ice is melted in water in an insulated container, the net entropy decreases.
- (D) Work must be input if energy is transferred from a cold body to a hot body.

57. A motor car moving at a certain speed takes a left turn in a curved path. If the engine rotates in the same direction as that of wheels, then due to the centrifugal forces :

- (A) the reaction on the inner wheels increases and on the outer wheels decreases
- (B) the reaction on the outer wheels increases and on the inner wheels decreases
- (C) the reaction on the front wheels increases and on the rear wheels decreases
- (D) the reaction on the rear wheels increases and on the front wheels decreases

58. The crystal structure of aluminium is :

- (A) body-centred cubic
- (B) face-centred cubic
- (C) close-packed hexagonal
- (D) body-centred tetragonal

59. Why is compounding of steam turbines done ?

- (A) To reduce the speed of rotor
- (B) To improve efficiency
- (C) To reduce exit losses
- (D) To increase the turbine output

60. The purpose of longitudinal butt joint in boiler shell is :

- (A) to make cylindrical ring from steel plate
- (B) to increase the length of boiler shell by connecting one ring to another
- (C) to make diameter and length of boiler shell
- (D) to connect openings to shell

61. Losses due to deterioration, theft and pilferage come under :

- (A) Inventory carrying charges
- (B) Not any cost
- (C) Losses due to theft
- (D) Consumption cost

62. In laminar flow over a flat plate :

- (A) The thermal boundary layer and hydrodynamic boundary layers are of equal thickness
- (B) The thermal boundary layer is thicker if the Prandtl number is greater than one
- (C) The thermal boundary layer is thicker if the Prandtl number is less than one
- (D) The thermal boundary layer is always thinner in the laminar region

63. A path line describes :

- (A) The velocity direction at all points on the line
- (B) The path followed by particles in a flow
- (C) The path over a period of times of a single particle that has passed out at a point
- (D) The instantaneous position of all particles that have passed a point

64. The point of contraflexure occurs in :
- (A) Cantilever beam only
 - (B) Simply supported beam only
 - (C) Overhanging beam only
 - (D) Continuous beam only
65. A Carnot refrigeration cycle is used to estimate the energy requirement in an attempt to reduce the temperature of a specimen to absolute zero. Suppose that we wish to remove 0.01 J of energy from the specimen when it is at 2×10^{-6} K. How much work is necessary if the high-temperature reservoir is at 20°C ?
- (A) 622 kJ
 - (B) 864 kJ
 - (C) 1170 kJ
 - (D) 1465 kJ
66. In a turning moment diagram, the variations of energy above and below the mean resisting torque line is called :
- (A) fluctuation of energy
 - (B) maximum fluctuation of energy
 - (C) coefficient of fluctuation of energy
 - (D) none of the above
67. In a machining operation, if the generatrix and directrix both are straight lines, the surface obtained :
- (A) cylindrical
 - (B) helical
 - (C) plane
 - (D) surface of revolution
68. In case of clamp coupling, power is transmitted by means of :
- (A) friction force
 - (B) shear resistance
 - (C) crushing resistance
 - (D) none of the above

69. SIRO discipline is generally found in :

- (A) Loading and unloading
- (B) Office filing
- (C) Lottery draw
- (D) Train arrivals at platform

70. The decreasing order of effectiveness for a given situation among types of heat exchangers is :

- (A) parallel flow, cross flow, shell and tube, counter flow
- (B) cross flow, counter flow, shell and tube, parallel flow
- (C) counter flow, shell and tube, cross flow, parallel flow
- (D) counter flow, cross flow, shell and tube, parallel flow

71. In a steady flow along a stream line at a location in the flow, the velocity head is 6 m, the pressure head is 3 m, and the potential head is 4 m. the height of hydraulic gradient line at this location will be :

- (A) 13 m
- (B) 09 m
- (C) 10 m
- (D) 07 m

72. The shear stress at the wall of a 16 cm diameter pipe in laminar flow is 36 N/m^2 . The shear stress at a radius of 4 cm in N/m^2 is :

- (A) 9
- (B) 18
- (C) 6
- (D) 72

73. The Hoop stresses are acting across the :
- (A) Circumferential section
 - (B) Longitudinal section
 - (C) Radial section
 - (D) None of the above
74. In a quasiequilibrium process, the pressure :
- (A) remains constant
 - (B) varies with location
 - (C) is everywhere constant at an instant
 - (D) depends only on temperature
75. For two governors A and B, the lift of sleeve of governor A is more than that of governor B, for a given fractional change in speed. It indicates that :
- (A) governor A is more sensitive than governor B
 - (B) governor B is more sensitive than governor A
 - (C) both governors A and B are equally sensitive
 - (D) none of the above
76. Petroff's equation is used to find out :
- (A) load carrying capacity of the bearing
 - (B) frictional losses in the bearing
 - (C) unit bearing pressure on the bearing
 - (D) pressure distribution around the periphery of the journal
77. When a doctor attends to an emergency case leaving his regular service is called :
- (A) Reneging
 - (B) Balking
 - (C) Pre-emptive queue discipline
 - (D) Non-Pre-emptive queue discipline
78. The design of piston head is based on :
- (A) strength and rigidity considerations
 - (B) bending and torsional moments
 - (C) buckling consideration
 - (D) strength and heat transfer considerations

79. The direction of linear velocity of any point on a link with respect to another point on the same link is :
- (A) parallel to the link joining the points
 - (B) at 45° to the link joining the points
 - (C) perpendicular to the link joining the points
 - (D) none of the above
80. The VED analysis depends on :
- (A) Annual consumption cost of materials
 - (B) Unit price of materials
 - (C) Time of arrival of materials
 - (D) Criticality of materials
81. Grenada is located in :
- (A) Mediterranean Sea
 - (B) Indian Ocean
 - (C) Pacific Ocean
 - (D) Caribbean Sea
82. The Planned Development Model was adopted in India from :
- (A) 26th January, 1950
 - (B) 1st April, 1951
 - (C) 15th August, 1947
 - (D) 26th November, 1949
83. Which, among the following measures of Lord Curzon, deeply hurt the feelings of the Indians ?
- (A) Partition of Bengal
 - (B) Indian Universities Act
 - (C) Centralisation Process
 - (D) Bombay Act

84. "PPP" as used in the financial world stands for :

- (A) Present Purchasing Power
- (B) People Purchasing Power
- (C) Purchasing Power Parity
- (D) Public Payment Potential

85. The "Arthashastra" was written by :

- (A) Chanakya
- (B) Banbhatta
- (C) Kalidas
- (D) Plato

86. India has adopted "Rule of Law" on the pattern of :

- (A) Germany
- (B) Japan
- (C) Australia
- (D) Britain with certain changes

87. By which constitutional amendment OBCs have been given 27 percent reservation in the admission to educational institutions ?

- (A) 90th
- (B) 93rd
- (C) 96th
- (D) 86th

88. The maximum possible strength of Supreme Court is :

- (A) 29
- (B) 30
- (C) 35
- (D) 31

89. What is baking soda ?

- (A) Sodium Potash
- (B) Sodium bicarbonate
- (C) Computational cheese
- (D) Molecular

90. According to National Youth Policy 2014, youth of which one of the following age groups will be benefitted ?
- (A) 17-28 years
 - (B) 16-30 years
 - (C) 14-28 years
 - (D) 15-29 years
91. Who founded the Himachal Vikas Congress ?
- (A) Thakur Ram Lal
 - (B) Dr. Salig Ram
 - (C) Pandit Sukh Ram
 - (D) Meheswar Singh
92. Which raja of Bangahal state was treacherously killed by Raja Sidh Sen of Mandi ?
- (A) Dalel Pal
 - (B) Man Pal
 - (C) Prithi Pal
 - (D) Raghunath Pal
93. Of which river tributaries are Fhojal, Sarvari and Hansa streams ?
- (A) Sutlej
 - (B) Beas
 - (C) Ravi
 - (D) Yamuna
94. Which raja of Bushahr princely state received Hang-Rang valley from Tibet as Jagir ?
- (A) Bhup Singh
 - (B) Padam Singh
 - (C) Shamsheer Singh
 - (D) Kehri Singh
95. Identify the Himachali who was captain of Indian Hockey team that won gold medal at 1964 Olympics at Tokyo ?
- (A) Darshan Singh
 - (B) Prithi Pal Singh
 - (C) Charanjit Singh
 - (D) Gurbhakash Singh

96. When Himachal Pradesh was formed in 1948, which was the smallest princely state/thakurai to join it (in terms of area) ?
- (A) Kuthar
(B) Rawingarh
(C) Ratesh
(D) Darkoti
97. What is capacity of Binwa hydel project in Kangra district ?
- (A) 6 MW
(B) 3 MW
(C) 60 MW
(D) 22.5 MW
98. Suhi fair is celebrated in memory of :
- (A) Rani Champavati
(B) Rani Pragaya
(C) Rani Vasundhra
(D) None of the above
99. Dr. Yashwant Singh Parmar has authored which of the following books ?
- (A) Polyandry in the Himalayas
(B) Himachal Pradesh : Case for Statehood
(C) H.P. : Its proper, shape and status
(D) All of the above
100. Which ruler of Nurpur princely state was sent by Shah Jahan in 1645 A.D. to curb the ugbeks of Balkh ?
- (A) Prithvi Singh
(B) Jagat Singh
(C) Bas Dev
(D) Raj Rup Singh