## Airport Engineering

## Question No. 01

For supersonic transport aircraft, the minimum turning radius of taxiway is
(A) 60 m
(B) 120 m
(C) 180 m
(D) 240 m

Answer: Option C

## Question No. 02

The width and interval of transverse centre line bars along the extended centre line of runway, in approach lighting system are
(A) 3 m and 30 m
(B) 4.2 m and 30 m
(C) 4.2 m and 50 m
(D) 3 m and 45 m

Answer: Option B

## Question No. 03

In an airport, if 4 groups of 5 gates each located well separated are considered for traffic and the future to present traffic ratio is 3 , then the total requirement of future gates will be
(A) 32
(B) 36
(C) 44
(D) 68

Answer: Option B

## Question No. 04

The runway length after correcting for elevation and temperature is $\mathbf{2 8 4 5} \mathbf{~ m}$. If the effective gradient on runway is 0.5 percent then the revised runway length will be
(A) 2845 m
(B) 2910 m
(C) 3030 m
(D) 3130 m

Answer: Option C

## Question No. 05

As per ICAO recommendation, the rate of change of longitudinal gradient per 30 m length of vertical curve for $A$ and $B$ type of airports is limited to a maximum of
(A) $0.1 \%$
(B) $0.2 \%$
(C) $0.3 \%$
(D) $0.4 \%$

Answer: Option A

## Question No. 06

According to ICAO, all markings on the runways are
(A) Yellow
(B) White
(C) Black
(D) Red

Answer: Option B

## Question No. 07

The length of runway under standard conditions is $\mathbf{2 0 0 0} \mathbf{~ m}$. The elevation of airport site is $\mathbf{3 0 0} \mathbf{~ m}$. Its reference temperature is $33.05^{\circ} \mathrm{C}$. If the runway is to be constructed with an effective gradient of 0.25 percent, the corrected runway length will be
(A) 2500 m
(B) 2600 m
(C) 2700 m
(D) 2800 m

Answer: Option C

## Question No. 08

Which of the following is used for servicing and repairs of the aircraft?
(A) Apron
(B) Hanger
(C) Terminal building
(D) Holding apron

Answer: Option B

## Question No. 09

The minimum width of clearway is
(A) 50 m
(B) 100 m
(C) 150 m
(D) 250 m

Answer: Option C

## Question No. 10

The cruising speed of the aircraft is $\mathbf{5 0 0} \mathbf{~ k m p h}$. If there is a head wind of $\mathbf{5 0} \mathbf{~ k m p h}$, then the air speed and ground speed of the aircraft respectively will be
(A) 450 kmph and 500 kmph
(B) 500 kmph and 450 kmph
(C) 450 kmph and 450 kmph
(D) 500 kmph and 500 kmph

Answer: Option A

## Question No. 11

The size of landing area for multi engine helicopters operating under 1 FR conditions is
(A) $22.5 \mathrm{~m} \times 22.5 \mathrm{~m}$
(B) $30 \mathrm{~m} \times 30 \mathrm{~m}$
(C) $22.5 \mathrm{~m} \times 30 \mathrm{~m}$
(D) $60 \mathrm{~m} \times 120 \mathrm{~m}$

Answer: Option D

## Question No. 12

The slope of the transitional surface for $A, B$ and $C$ type of runway shall be
(A) $1: 5$
(B) $1: 7$
(C) $1: 10$
(D) $1: 12$

Answer: Option B

## Question No. 13

## Castor angle is defined as the angle

(A) Formed by the longitudinal axis of the aircraft and the direction of movement of the nose gear
(B) Between the direction of wind and the longitudinal axis of the runway
(C) Between the true speed of the aircraft and the crosswind component
(D) Between the horizontal and the fuselage axis

Answer: Option A

## Question No. 14

Zero fuel weight of an aircraft is:
(A) Equal to empty operating weight
(B) Equal to maximum landing weight
(C) Less than empty operating weight
(D) Equal to sum of empty operating weight and the maximum pay load

Answer: Option D

## Question No. 15

If the monthly mean of average daily temperature for the hottest month of the year is $25^{\circ} \mathrm{C}$ and the monthly mean of the maximum daily temperature of the same month of the year is $46^{\circ} \mathrm{C}$, the airport reference temperature is
(A) $32^{\circ} \mathrm{C}$
(B) $35.5^{\circ} \mathrm{C}$
(C) $48^{\circ} \mathrm{C}$
(D) $25^{\circ} \mathrm{C}$

Answer: Option C

## Question No. 16

Wing loading of an aircraft is
(A) Load of the wings
(B) Gross total weight of the aircraft/ load of the wings
(C) Gross total weight of the aircraft/ wing area
(D) Gross total weight of the aircraft/total available H.P of engines

Answer: Option C

## Question No. 17

The main disadvantage of angle nose out parking configuration of aircraft is that the
(A) Aircraft rear loading door is far away from terminal building.
(B) Hot blast is directed towards the terminal building
(C) Overall apron area required is more
(D) All the above

Answer: Option B

## Question No. 18

The air is blowing at a speed of 75 knots in the direction of the aircraft flying at a ground speed of 775 knots. The air speed of the aircraft, is
(A) 775 knots
(B) 75 knots
(C) 850 knots
(D) 675 knots

Answer: Option D

## Question No. 19

Maximum gross takeoff weight of an aircraft is
(A) Equal to the maximum structural landing weight
(B) Less than the maximum structural landing weight
(C) More than the maximum structural landing weight
(D) Equal to the empty operating weight plus the payload

Answer: Option C

## Question No. 20

Pick up the correct statement from the following:
(A) Minimum turning radius of aircrafts decides the size of the apron and the radius of the curves at taxi-ends
(B) Take off and landing distances for an aircraft, determine the minimum runway length
(C) The length of the normal haul of the air craft decides the frequency of operation
(D) All the above

Answer: Option D

## Question No. 21

As per ICAO, the minimum basic runway length for $A$ and $E$ type of airport will be
(A) 1500 m and 600 m
(B) 2100 m and 750 m
(C) 1500 m and 750 m
(D) 2100 m and 600 m

Answer: Option D

## Question No. 22

Pick up the correct statement from the following:
(A) Runway edge from the landing side, is called threshold
(B) Localizer indicates to the pilot his position with respect to the proposed alignment
(C) The glide slope indicates the correct angle of descent
(D) All the above

Answer: Option D

## Question No. 23

Assertion A : The ratio of arriving and departing aircrafts influences the airport
Capacity: Reason $\mathbf{R}$ : Landing operation is generally given priority over the taking off operation. Select your answer based on the coding system given below:
(A) Both $A$ and $R$ is true and $R$ is the correct explanation of $A$
(B) Both $A$ and $R$ is true and $R$ is not the correct explanation of $A$
(C) $A$ is true but $R$ is false
(D) $A$ is false but $R$ is true

Answer: Option A

## Question No. 24

A gradient of $+0.08 \%$ is followed by a gradient of $-0.07 \%$. If the permissible rate of change of grade is $\mathbf{0 . 0 0 3}$ per $\mathbf{3 0}$ metres, the length of the transition curve, is
(A) 150 m
(B) 140 m
(C) 160 m
(D) 175 m

Answer: Option A

## Question No. 25

The total length of a runway is 1000 m . The elevation at distance $0,200 \mathrm{~m}, 400 \mathrm{~m}, 600 \mathrm{~m}, 800 \mathrm{~m}$ and 1000 m are $100.0 \mathrm{~m}, 99.2 \mathrm{~m}, 101.0 \mathrm{~m}, 101.8 \mathrm{~m}, 101.4 \mathrm{~m}$ and 101.0 m respectively. The effective gradient of runway will be.
(A) $0.10 \%$
(B) $0.26 \%$
(C) $0.43 \%$
(D) $0.65 \%$

Answer: Option B

## Question No. 26

Pick up the incorrect statement from the following:
(A) L.O.M. is installed at 7.2 km from the threshold
(B) L.M.M. is installed at 1.0 km from the threshold
(C) Localizer antenna is installed at 300 m from the other end of the runway
(D) Glide slope antenna is installed at the centre of the runway about 150 m on one side Answer: Option D

## Question No. 27

As per UK design criteria, if LCN of aircraft is between 1.25 to 1.5 times the LCN of pavement, then the number of movements allowed are
(A) Zero
(B) 300
(C) 3000
(D) Unrestricted

Answer: Option B

## Question No. 28

Effective length of a runway is the distance between
(A) Ends of the runway
(B) Point of intersection of the obstruction clearance line and the extended plane of the runway surface, and the other end of the runway
(C) Point of intersection of the glide path and the extended plane of the runway surface and the other end of the runway
(D) Ends of the clear way on either side

Answer: Option B

## Question No. 29

Consider the following statements: Wind rose diagram is used for the purposes of

1. Runway orientation
2. Estimating the runway capacity

## 3. Geometric design of holding apron of these statements

(A) 1 and 2 are correct
(B) 2 and 3 are correct
(C) 1 and 3 are correct
(D) 1 alone is correct

Answer: Option D

## Question No. 30

The length of a runway under standard atmospheric conditions is 1800 m . If the actual reduced level of the site is 1200 m , the design length of the runway is
(A) 2360 m
(B) 2460 m
(C) 2560 m
(D) 2660 m

Answer: Option C

## Question No. 31

Calm period is the percentage of time during which wind intensity is less than
(A) 4.8 kmph
(B) 6.4 kmph
(C) 8.0 kmph
(D) 9.6 kmph

Answer: Option B

## Question No. 32

For the proposed air port, the survey project provides
(A) Master plan
(B) Topographic plan
(C) Grading plan
(D) All the above

Answer: Option D

## Question No. 33

An airport has 4 gates. If the weighted average gate occupancy time is 30 minutes and gate utilisation factor is 0.5 , then the capacity of the gate will be
(A) 1 aircraft per hour
(B) 2 aircrafts per hour
(C) 4 aircrafts per hour
(D) 16 aircrafts per hour

Answer: Option C

## Question No. 34

The strength of winds is measured with the help of
(A) Beaufort scale
(B) Wind indicator
(C) Barometers
(D) None of these

Answer: Option A

## Question No. 35

As per ICAO recommendation, minimum width of safety area for instrumental runway should be
(A) 78 m
(B) 150 m
(C) 300 m
(D) 450 m

Answer: Option C

## Question No. 36

Pick up the correct statement from the following:
(A) F.I.R. stands for flight information regions
(B) Radius of control area is 160 km
(C) Radius of control zone is 40 km
(D) All the above

Answer: Option D

## Question No. 37

For determining the basic runway length, the landing case requires that aircraft should come to a stop within $p \%$ of the landing distance. The value of $p$ is
(A) $40 \%$
(B) $50 \%$
(C) $60 \%$
(D) $75 \%$

Answer: Option C

## Question No. 38

According to the International Civil Aviation Organisation (I.C.A.O.) the strength of runway pavements, have been coded by
(A) Seven English alphabets
(B) Last Seven English alphabets
(C) First Seven English alphabets
(D) First seven numbers

Answer: Option D

## Question No. 39

Which of the following is an example of failure in flexible pavements?
(A) Alligator cracking
(B) Mud pumping
(C) Warping cracks
(D) Shrinkage cracks

Answer: Option A

## Question No. 40

For night landing, the thresholds are lighted
(A) Green
(B) Red
(C) White
(D) Yellow

Answer: Option A

## Question No. 41

In approach areas of runways equipped with instrumental landing facilities any object within 4.5 km distance from runway end shall be considered as an obstruction if its height is more than
(A) 20 m
(B) 30 m
(C) 45 m
(D) 51 m

## Question No. 42

Pick up the correct statement from the following:
(A) Tar concrete pavements are suitable if fuel spillage occurs
(B) Rubberised tar concrete hot blast as well as spillage
(C) Epoxy asphalt concrete sets in very small time
(D) All the above

Answer: Option D

## Question No. 43

The engine failure case for determining the basic runway length may require
(A) Only clearway
(B) Only stop way
(C) Either a clearway or a stop-way
(D) Either a clearway or a stop-way or both

Answer: Option D

## Question No. 44

The maximum value of the angle of turning of the nose gear large jet aircrafts, is limited to
(A) $20^{\circ}$
(B) $30^{\circ}$
(C) $45^{\circ}$
(D) $60^{\circ}$

Answer: Option D

## Question No. 45

Assertion A : Airport capacity during IFR conditions is usually less than that during VFR conditions. Reason R: During clear weather condition (VFR), the aircrafts on final approach to runway can be spaced closer during poor visibility conditions.
Select your answer based on the coding system given below:
(A) Both $A$ and $R$ is true and $R$ is the correct explanation of $A$
(B) Both $A$ and $R$ is true but $R$ is not the correct explanation of $A$
(C) $A$ is true but $R$ is false
(D) $A$ is false but $R$ is true

Answer: Option A

## Question No. 46

The landing and takeoff of the air craft is made against the direction of wind. In no case the centre line of the runway should make an angle with the wind direction exceeding
(A) $10^{\circ}$
(B) $20^{\circ}$
(C) $30^{\circ}$
(D) $40^{\circ}$

Answer: Option C

## Question No. 47

Consider the following statements regarding ICAO recommendation for correction to basic runway length

1. The basic runway length should be increased at the rate of 7 percent per 300 m rise in elevation above the mean sea level.
2. The basic runway length after having been corrected for elevation should be further increased at the rate of 1 percent for every $1^{\circ} \mathrm{C}$ rise in airport reference temperature above the standard atmospheric temperature at that elevation.
3. The runway length after having been corrected for elevation and temperature should be further increased at the rate of $\mathbf{2 0 \%}$ for every 1 percent of effective gradient.
Of these statements
(A) 1 and 2 are correct
(B) 2 and 3 are correct
(C) 1 and 3 are correct
(D) 1, 2 and 3 are correct

Answer: Option A

## Question No. 48

Pick up the incorrect statement from the following:
(A) Channelization of pavement is caused by constant use of tri-cycle gears of aircraft
(B) Blast pads are used over cohesionless soils to resist erosion due to tremendous speed of the jet blast
(C) Over-run areas of at least 300 m length on either side of the runway are provided
(D) None of these

Answer: Option D

## Question No. 49

As per ICAO, for A, B, and C type of airports, maximum effective, transverse and longitudinal grades in percentage respectively are
(A) 1.0, 1.5 and 1.5
(B) 1.0, 1.5 and 2.0
(C) $1.5,1.5$ and 2.0
(D) 2.0, 2.0 and 2.0

Answer: Option A

## Question No. 50

The meteorological condition which influences the size and location of an air port is
(A) Atmosphere pressure
(B) Air density
(C) Reduced level
(D) All the above

Answer: Option D

## Question No. 51

The length of clear zone for none instrument runway of a small aircraft is
(A) 150 m
(B) 300 m
(C) 600 m
(D) 750 m

Answer: Option B

## Question No. 52

To cope up high temperature of $196^{\circ} \mathrm{C}$, the taxi ways and aprons are constructed with
(A) Asphaltic concrete
(B) Rubberised tar concrete
(C) Plain concrete
(D) All the above

Answer: Option D

## Question No. 53

Runway threshold is indicated by a series of parallel lines starting from a distance of
(A) 3 m from runway end
(B) 6 m from runway end
(C) 10 m from runway end
(D) 15 m from runway end

Answer: Option B

## Question No. 54

The reduced level of the proposed site of an air port is $\mathbf{2 5 0 0} \mathbf{m}$ above M.S.L. If the recommended length by I.C.A.O. for the runway at sea level is $\mathbf{2 5 0 0} \mathbf{~ m}$, the required length of the runway is
(A) 2500 m
(B) 3725 m
(C) 3000 m
(D) 3250 m

Answer: Option B

## Question No. 55

The capacity of parallel runway pattern depends upon
(A) Weather conditions and navigational aids available
(B) Lateral spacing between two runways and weather conditions
(C) Lateral spacing between two runways and navigational aids available
(D) Lateral spacing between two runways, weather conditions and navigational aids available.

Answer: Option D

## Question No. 56

Pick up the correct statement from the following:
(A) Approximate geometric centre of the landing area, is called air port reference point
(B) The boundaries of horizontal surface and conical surface are marked with reference to air port reference point
(C) The location of the air port on a map is the position of air port reference point
(D) All the above

Answer: Option D

## Question No. 57

As per ICAO, for airports serving big aircrafts, the crosswind component should not exceed
(A) 15 kmph
(B) 25 kmph
(C) 35 kmph
(D) 45 kmph

Answer: Option C

## Question No. 58

The threshold markings are
(A) 4 m wide
(B) 1 m clear space between adjacent
(C) Placed symmetrically on either side of the runway centre line
(D) All the above

Answer: Option D

## Question No. 59

Assertion A: The width of a taxiway is smaller than the runway width.
Reason R: The speed of the aircraft on a taxiway is greater than that on runway.

## Select your answer based on coding system given below

(A) Both $A$ and $R$ is true and $R$ is the correct explanation of $A$
(B) Both $A$ and $R$ is true but $R$ is not the correct explanation of $A$
(C) $A$ is true but $R$ is false
(D) $A$ is false but $R$ is true

Answer: Option C

## Question No. 60

An aircraft is flying in an atmosphere of $30^{\circ} \mathrm{C}$ with a speed of 1260 km ph. Its speed is known as
(A) Subsonic
(B) Sonic
(C) Super-sonic
(D) Mach

Answer: Option B

## Question No. 61

Conical surface of the approach area rises outwards
(A) 1 in 10
(B) 1 in 15
(C) 1 in 20
(D) 1 in 25

Answer: Option C

## Question No. 62

Speed of
(A) Sound at $0^{\circ} \mathrm{C}$ is 1190 kmph
(B) Sound varies 2.4 kmph per degree centigrade rise in temperature
(C) Sound at $0^{\circ} \mathrm{C}$ is called one Mach
(D) All the above

Answer: Option D

## Question No. 63

The maximum length and pavement strength of the runway is that of
(A) $A 1$
(B) B 2
(C) B 3
(D) G 7

Answer: Option A

## Question No. 64

Total correction for elevation, temperature and gradient for a runway should not be more than
(A) $15 \%$
(B) $20 \%$
(C) $25 \%$
(D) $35 \%$

Answer: Option D

## Question No. 65

## In instrument landing system

(A) L.O.M. and L.M.M. are installed on one side and Localizer antenna on the other side
(B) L.O.M. and Localizer are installed on one side and L.M.M. on the other side
(C) Localizer and L.M.M. are installed on one side and L.O.M. on the other side
(D) None of these

Answer: Option A

## Question No. 66

In Intrumental landing system, the middle markers are located
(A) Along the extended centre line of runway end
(B) About 1 km . ahead of the runway threshold
(C) At the runway threshold
(D) About 7 km . ahead of the runway threshold

Answer: Option B

## Question No. 67

The bearing of the longest line of a wind rose is $S 45^{\circ} \mathrm{E}$, the bearing of the runway will be numbered
(A) $135^{\circ}$
(B) 31
(C) 13
(D) Both (c) and (d)

Answer: Option D

## Question No. 68

Two single runways may be arranged so as to have
(A) L-shape
(B) $T$-shape
(C) $X$-shape
(D) All the above

Answer: Option D

## Question No. 69

Pick up the correct statement from the following:
(A) Air screw converts the energy given by the engine into speed
(B) The propellers which are driven by turbine engines, are technically called turboprops
(C) The aircrafts which obtain the thrust directly from turbine engine, are called turbo-jets
(D) All the above

Answer: Option D

## Question No. 70

Which of the following factors are taken into account for estimating the runway length required for aircraft landing?

1. Normal maximum temperature
2. Airport elevation
3. Maximum landing weight
4. Effective runway gradient

Select the correct answer using the codes given below Codes:
(A) 1, 2, 3 and 4
(B) 1, 3 and 4
(C) 2 and 3
(D) 1, 2 and 4

Answer: Option D

## Question No. 71

The bearing of the runway at threshold is $290^{\circ}$, the runway number is
(A) $N 70^{\circ} \mathrm{W}$
(B) $290^{\circ}$
(C) $29^{\circ}$
(D) $W 20^{\circ} \mathrm{N}$

Answer: Option C

## Question No. 72

## Pick up the correct statement from the following:

(A) The speed of the aircraft relative to the ground, is called cruising speed
(B) The speed of the aircraft relative to wind, is called air speed
(C) When wind is blowing the direction of the flight, air speed is less than cruising speed
(D) All the above

Answer: Option D

## Question No. 73

The centre to centre spacing of heliport lighting along the periphery of landing and takeoff area should be
(A) 2.5 m
(B) 5.0 m
(C) 7.5 m
(D) 10.0 m

Answer: Option C

## Question No. 74

Pick up the correct statement from the following:
(A) Approach zone survey is carried out to determine the elevations of the protruding obstructions above horizontal, conical and transitional surfaces
(B) The wind data of an air port is depicted in the form of a chart known as wind rose
(C) The landing and takeoff of the air craft is made against the wind direction
(D) All the above

Answer: Option D

## Question No. 75

Pick up the correct statement from the following:
(A) The basic length of a runway is increased at a rate of $7 \%$ per 300 m of elevation of M.S.L.
(B) The standard temperature at the site is obtained by reducing the standard sea level temperature of $15^{\circ} \mathrm{C}$ at the rate of $6.5^{\circ} \mathrm{C}$ per 1000 m rise in elevation
(C) The aerodrome reference temperature is the monthly mean of the mean daily temperature for the hottest month of the year
(D) All the above

Answer: Option D

## Question No. 76

Pick up the correct statement from the following:
(A) The centre line of the approach area coincides with that of the runway
(B) Approach areas are measured in horizontal surfaces
(C) Obstruction clearance surface and approach surface are same
(D) All the above

Answer: Option D

## Question No. 77

According to I.C.A.O. all markings on the runways are painted white and on taxiways
(A) Black
(B) Red
(C) Yellow
(D) Green

Answer: Option C

## Question No. 78

The slope of the obstruction clearance line from the boundary of the heliport should be
(A) $1: 2$
(B) $1: 5$
(C) $1: 8$
(D) $1: 40$

Answer: Option C

Question No. 79
If lift off distance of an craft is $\mathbf{2 0 0 0} \mathbf{~ m}$, the clear way at the end of the runway should not be less than
(A) 145 m
(B) 152.5 m
(C) 162.5 m
(D) 172.5 m

Answer: Option D

## Question No. 80

The height of the pilot's eye above the runway surface is assumed
(A) 1 m
(B) 3 m
(C) 4 m
(D) 5 m

Answer: Option B

## Question No. 81

The coordinates of the ends of a runway are $(5000,5000)$ and $(8000,7000)$. The co-ordinates of another runway are $(4600,5100)$ and $(7000,5300)$. The co-ordinates of the A.R.P. are
(A) $(6500,6000)$
(B) $(5800,5200)$
(C) $(61500,5600)$
(D) $(8000,7000)$

Answer: Option C

## Question No. 82

The fuse large includes
(A) Passengers chamber
(B) Pilot's cabin
(C) Tail of aircraft
(D) All the above

Answer: Option D

## Question No. 83

According to I.C.A.O. the recommended length of air ports is decided on
(A) Sea level elevation
(B) Standard sea level temperature $\left(15^{\circ} \mathrm{C}\right)$
(C) Effective gradient percentage
(D) All the above

Answer: Option D

## Question No. 84

The lift off distance is the distance along the centre of the runway between the starting point and
(A) End of the runway
(B) End of stop-way
(C) Point where air craft becomes air borne
(D) Point where air craft attains a height of 10.7 m

Answer: Option A

## Question No. 85

For the proposed runway stated in if the aerodrome reference temperature is $17^{\circ} .2$, the net designed length of the runway is
(A) 2716 m
(B) 2816 m
(C) 2916 m
(D) 3016 m

Answer: Option B

## Question No. 86

The length of runway is increased per $\mathbf{3 0 0} \mathbf{m}$ rise above M.S.L.
(A) $3 \%$
(B) $4 \%$
(C) $5 \%$
(D) $7 \%$

Answer: Option D

## Question No. 87

Pick up the correct statement from the following:
(A) Landing speed is directly proportional to the wing loading
(B) Wing loading remaining constant, the take off distance is directly proportional to the powder loading
(C) Neither (a) nor (b)
(D) Both (a) and (b)

Answer: Option D

## Question No. 88

From the end of an instrumental runway, the approach surface rises outwards
(A) 1 in 20
(B) 1 in 30
(C) 1 in 40
(D) 1 in 50

Answer: Option D

## Question No. 89

Pick up the component not applicable to aeroplanes
(A) Wings
(B) Engines
(C) Air screw
(D) None of these

Answer: Option D

## Question No. 90

Airport elevation is the reduced level above M.S.L. of
(A) Control tower
(B) Highest point of the landing area
(C) Lowest point of the landing area
(D) None of these

Answer: Option B

## Question No. 91

According to the International Civil Aviation Organisation (I.C.A.O.), the runway lengths of aerodromes, have been coded by
(A) Seven English alphabets
(B) Last Seven English alphabets
(C) First Seven English alphabets
(D) First seven natural numbers

Answer: Option C

## Question No. 92

Pick up the correct statement from the following:
(A) The distance between the points of intersection of the extreme tangents to the transition curve is kept greater than $7500 \mathrm{~m} \times$ sum of grade changes at the point of intersection
(B) The rate of change of grade is limited to $0.3 \%$ per 30 m length of the curve
(C) According to I.C.A.O. the maximum longitudinal gradient along a runway is limited to $1.5 \%$
(D) All the above

Answer: Option D

## Question No. 93

The runway orientation is made so that landing and takeoff are
(A) Against the wind direction
(B) Along the wind direction
(C) Perpendicular to wind direction
(D) None of these

Answer: Option A

## Question No. 94

According to I.C.A.O. the slope of transitional surface at right angles to the centre line of runway, is kept
(A) 1 in 4
(B) 1 in 5
(C) 1 in 6
(D) 1 in 7

Answer: Option D

## Question No. 95

The depressions and undulations in the pavement, are caused due to
(A) Improper compaction of sub-grade
(B) Impact of heavy wheel loads
(C) Punching effect
(D) All the above

Answer: Option D

## Question No. 96

Pick up the incorrect statement from the following:
(A) In single engine aeroplanes, the engine is provided in the nose of the aircraft
(B) In double engine aeroplanes, one engine on either wing is placed symmetrically
(C) In three engine aeroplanes, two engines are placed on both wings and one engine is placed in the tail
(D) None of these

Answer: Option C

## Question No. 97

The thickness design of the pavement, is decided on the load carried by
(A) Main gears
(B) Nose wheel
(C) Tail wheel
(D) All the above

Answer: Option A

## Question No. 98

For Class ' $A$ ' Air port the difference of reduced levels of higher and lower edges of the conical surface, is
(A) 25 m
(B) 50 m
(C) 75 m
(D) 100 m

Answer: Option D

## Question No. 99

Beaufort scale is used to determine
(A) Strength of winds
(B) Direction of winds
(C) Height of air-crafts
(D) None of these

Answer: Option A

## Question No. 100

The distance between main gears is 10 m , and the distance of nose gear from centre of main gears is $\mathbf{3 0} \mathbf{~ m}$. If the angle of turning is $60^{\circ}$, the distance of centre of rotation from the nearer main gear, is
(A) 12.30 m
(B) 11.30 m
(C) 10.30 m
(D) 9.30 m

Answer: Option A

## Question No. 101

Pick up the correct abbreviation from the following:
(A) L.M.M. (low powered middle marker)
(B) V.H.F, (very high frequency)
(C) L.O.M. (low powered outer marker)
(D) All the above

Answer: Option D

## Question No. 102

The best direction of a runway is along the direction of
(A) Longest line on wind rose diagram
(B) Shortest line on the wind rose diagram
(C) Line clear of wind rose diagram
(D) None of these

Answer: Option A

Question No. 103
International Civil Aviation Organisation (I.C.A.O.) was set up at Montreal (Canada), in
(A) 1929
(B) 1939
(C) 1947
(D) 1950

Answer: Option C

## Question No. 104

For the taxiways, the following statement is true
(A) The maximum longitudinal grade is $3 \%$
(B) The permissible rate of change of grade is $1 \%$
(C) The permissible transverse grade is $1.5 \%$
(D) All the above

Answer: Option D

## Question No. 105

If the width of the approach area near the runway end is 150 m , the width of the approach area at a distance of 3 kilometres from runway end will be
(A) 1500 m
(B) 1200 m
(C) 1000 m
(D) 800 m

Answer: Option B

## Question No. 106

The reduced levels of the ends $A$ and $B$ of a runway are 3025 m and 3035 m and that of its midpoint is $3015 \mathbf{~ m}$. The reduced level of the horizontal surface, is
(A) 3070 m
(B) 3060 m
(C) 3075 m
(D) 3015 m

Answer: Option C

