TYPES OF QUESTIONING AND INTERVIEWING TECHINIQUES

1. The open-ended question

This is a question that does not limit the scope of the answer. The witness will usually give a narrative answer. When taking a statement it is best to start with these types of questions.

Examples
Q: 'What happened after he struck you?'
Q: 'Why did you leave your home?'
Q: 'Where did you go after you ran away?'
Q: 'How did you cope living on the streets?'

This type of question is particularly useful when you want the witness to tell the story or part of it in his or her own words. It helps to move the story along. It can, however, allow the witness too much scope for 'rambling' off the point and overuse of open questions risks a loss of control.

2. The specific-closed question

This is a question which limits the scope of the answer. It is particularly useful when you are seeking to elicit a particular piece of information or detail from a witness. It allows much greater control of the witness than an open question.

Examples
Q: 'What time was it when he hit you?'
Q: 'How far away were you at that point?'
Q: 'In which hand was he holding the gun?'

3. Leading questions

A leading question is one that suggests or tends to suggest its own answer. It often assumes a fact that has not yet been established. It sometimes calls for a 'yes' or 'no' response. Leading questions should not be used when interviewing children.

Examples
'Did you cry when he hit you'
'Did you see the knife in his hand?'
'Was she standing three feet away from you?'

A non-leading question in the same circumstances would have been:
'How did you react when he hit you?'
'What did you see?'
'How far away was she?'

4. Non-leading questions

How then do you formulate your questions so as to avoid asking your witness a leading question?

There are two basic methods you can use:
a) Start your questions neutrally with one of the following interrogatives:

Who. . .?	When. . .?
What. . .?	How. . .?
Why. . .?	Where. . .?

Or with a neutral invitation:

Tell
Describe
Explain

These will enable you to elicit the answer from the witness. Generally avoid asking questions which start with the words 'Did you. . . ?', 'Were you. . . ?', or 'Was it . . . ?'—these will normally contain suggestion(s) and tend to lead!

b) Another basic way is to think of the answer you wish your witness to give and then omit any reference to the answer when framing the question. The question should come quite naturally.

Example
Answer required: 'Sunday'.
Q: 'What day was it?'
NOT: 'Was it a Sunday?' (a leading question)

In summary

Leading questions *(avoid using when taking a child statement)*	*Non-leading questions* *(use these questions when taking a statement)*
You said. . .?	Who?
You saw. . .?	What?
You did. . .?	Why?
You were. . .?	When?
It was. . .?	Where?
Did you?	How?
Didn't you?	Tell/Describe
Were you?	Explain
Weren't you?	Explain
Was it?	Explain
Wasn't it?	Explain

5. Forced-choice questions

This and the following are further types of question that should be avoided if at all possible and only be used as a last resort.

This type of question can also be termed a selection question: it gives witnesses only a small number of alternatives from which they must choose and which may, in fact, not include the correct option (e.g. "would you like tea or coffee?"). The result of asking this type of question is that witnesses may guess the answer by selecting one of the options given. People may also answer in the affirmative, and the interviewer must then either assume to which part of the question this reply corresponds (which may be an incorrect assumption) or rephrase the question.

Some vulnerable witnesses may only be able to respond to forced-choice questions that contain two alternatives. Such interviews are likely to require extensive planning, especially regarding the questions to be asked.

If forced-choice questions are to be used, it is particularly important to remind the witness that "don't know" or "don't understand" or "don't remember" responses are welcome and that the interviewer does not know what happened. If a witness replies "I don't know" to an "either/or" question (*e.g.* '"was the car large or small?"), interviewers should try to avoid then offering a compromise "yes/no" question (e.g. "If it wasn't large or small, would you say it was medium size?") that the witness may merely acquiesce to.

6. Multiple questions

A multiple question is one that asks about several things at once. For example: "Did you see him? Where was he? What was he wearing?" The main problem with this type of question is that people do not know which part of it to answer. The witness has to remember all the sub-questions asked while trying to retrieve the information required to answer each sub-question. Moreover, when a witness responds to such a question, misunderstandings can occur as the interviewer may wrongly assume that the witness is responding to sub-question one, when actually they are responding to sub-question two.

Less obvious examples of this type of question include those questions that refer to multiple concepts, for example "What did they look like?" This question asks the witness to describe two or more people, and thus may not only limit the amount of retrieval per person but also may confuse the interviewer as to who the witness is currently describing. Misunderstandings could therefore occur

7. Combining question techniques

Try and achieve a balance by combining open and closed questions for the maximum effect when taking a statement:

a) ask open questions to allow the witness to tell his or her story;
b) ask closed questions to elicit details from the witness or emphasise part of the story;
c) ask open questions to enable the witness to continue with the next part of the story;
d) ask closed questions to elicit details, and so on.

This is sometimes referred to as the funnel technique.

Q: 'Describe what he was wearing.'

NOT: 'Was he wearing blue jeans and a white t-shirt?'
Answer required: '(He left) three weeks ago.'

Q: 'When did he leave?'
NOT: 'Did he leave three weeks ago?'

The above illustrations show the advantage of preparing by using short headings or points. Try using a simple form of 'bullet point' preparation such as: 'Setting the scene—Sun/8 pm/wet?'.

8. Summaries

Interviewers should only summarise what the witness has said at the end of each topic if it is appropriate to do so (i.*e.* if what the witness has said appears somewhat disjointed or it may be open to ambiguous interpretation). Interviewers should not simply summarise as a matter of routine.

Where a summary is appropriate, the words and phrases used by the witness should be used as far as possible.

9. Inconsistencies

Witnesses can on occasion provide misleading accounts of events; these are often the result of misunderstandings or misremembering rather than deliberate fabrication. The most common cause of these misunderstandings is the interviewer failing to ask appropriate types of question or reaching a premature conclusion that the interviewer then presses the witness to confirm.

Where there are significant inconsistencies in the witness's account. Interviewers should explore them after they have probed their basic account. Witnesses should only be challenged directly over an inconsistency in exceptional circumstances and even then only when it is essential to do so. Rather, such inconsistencies should be presented in the context of puzzlement by the interviewer and the need to be quite clear what the witness has said. On no account should the interviewer voice their suspicions to the witness or label a witness as a liar: there may be a perfectly innocuous explanation for any inconsistency.

82/24

Question Booklet Alpha Code

A

Question Booklet Sl. No.

A

Total Number of Questions : 100 **Time : 90 Minutes**

Maximum Marks : 100

INSTRUCTIONS TO CANDIDATES

1. The Question Paper will be given in the form of a Question Booklet. There will be four versions of Question Booklets with Question Booklet Alpha Code viz. **A, B, C** & **D**.
2. The Question Booklet Alpha Code will be printed on the top left margin of the facing sheet of the Question Booklet.
3. The Question Booklet Alpha Code allotted to you will be noted in your seating position in the Examination Hall.
4. If you get a Question Booklet where the alpha code does not match to the allotted alpha code in the seating position, please draw the attention of the Invigilator IMMEDIATELY.
5. The Question Booklet Serial Number is printed on the top right margin of the facing sheet. If your Question Booklet is un-numbered, please get it replaced by new Question Booklet with same alpha code.
6. The Question Booklet will be sealed at the middle of the right margin. Candidate should not open the Question Booklet, until the indication is given to start answering.
7. Immediately after the commencement of the examination, the candidate should check that the Question Booklet supplied to him/her contains all the 100 questions in serial order. The Question Booklet does not have unprinted or torn or missing pages and if so he/she should bring it to the notice of the Invigilator and get it replaced by a complete booklet with same alpha code. This is most important.
8. A blank sheet of paper is attached to the Question Booklet. This may be used for rough work.
9. **Please read carefully all the instructions on the reverse of the Answer Sheet before marking your answers.**
10. Each question is provided with four choices **(A), (B), (C)** and **(D)** having one correct answer. Choose the correct answer and darken the bubble corresponding to the question number using Blue or Black Ball Point Pen in the OMR Answer Sheet.
11. **Each correct answer carries 1 mark and for each wrong answer 1/3 mark will be deducted. No negative mark for unattended questions.**
12. No candidate will be allowed to leave the examination hall till the end of the session and without handing over his/her Answer Sheet to the Invigilator. Candidates should ensure that the Invigilator has verified all the entries in the Register Number Coding Sheet and that the Invigilator has affixed his/her signature in the space provided.
13. Strict compliance of instructions is essential. Any malpractice or attempt to commit any kind of malpractice in the Examination will result in the disqualification of the candidate.

A

1. Which part doesn't belong to T square ?
   i. Working edge
   ii. Blade
   iii. Battens
   iv. Ebony
   A) i and ii B) ii and iii C) i and iii D) iii and iv

2. Small bow compass can draw circles less than _____ radius.
   A) 30 mm B) 25 mm C) 35 mm D) 40 mm

3. Which of the following is hardest pencil ?
   A) HB B) 9H C) 7B D) 3H

4. What is the ratio of length and width of drawing sheet ?
   i. 1 : 1.414
   ii. $\sqrt{2}$: 1
   iii. 1 : $\sqrt{2}$
   iv. 1 : 1.5
   A) i and ii B) ii and iv C) i and iii D) i and iv

5. What is the inclination of letters recommended by BIS ?
   A) 15° towards right B) 75° from horizontal
   C) 15° towards left D) 75° from vertical

6. Which of the following line projecting from the feature and extending beyond the dimension line ?
   A) Extension line B) Dimension line C) Leader line D) Out line

7. Which of the following are reducing scale ?
   i. 10 : 1
   ii. 10 : 2
   iii. 1 : 2
   iv. 1 : 5
   A) i and ii B) ii and iii C) iii and iv D) i and iv

8. Which one of the following is the sum of the interior angles of polygon where 'n' is the number of sides ?
   A) (2 × n – 4) × right angle B) (3 × n – 4) × right angle
   C) (3 × n – 5) × right angle D) (4 × n – 5) × right angle

9. The conic section at which section plane is inclined to the axis and is parallel to one of the generators of the cone, the section is called

A) Parabola B) Ellipse C) Hyperbola D) Involute

10. In orthographic projection, the projectors are _____ to the plane of projection.

A) Inclined B) Parallel C) Perpendicular D) Vertical

11. In which type of survey, the shape of the earth is taken into account ?

A) Plane survey B) Geodetic survey

C) Geological survey D) None of these

12. The process of fixing intermediate points on a survey line is called

A) Offsetting B) Extending C) Ranging D) Aligning

13. The direction of a line relative to a given meridian is called

A) Bearing B) Angle C) Dip D) Declination

14. The process of putting the plane table into some fixed direction so that line representing a certain direction on the plan is parallel to that direction on the ground

A) Fixing B) Centering C) Levelling D) Orientation

15. Which line is normal to the level line at a point ?

A) Horizontal line B) Vertical line

C) Datum line D) None of these

16. What is the inclination of the needle with the horizontal in prismatic compass ?

A) Dip B) Declination

C) Local attraction D) Variation

17. Which levelling is adopted while it is not possible to set up the level mid way between two points as across river or lake ?

A) Simple levelling B) Differential levelling

C) Profile levelling D) Reciprocal levelling

18. The bottom of a RCC chhajja A was taken as a temporary bench mark (RL 75.150 m). Reading on inverted staff on bench mark A is 2.760 m and reading on peg B on ground is 1.435 m. What is reduced level of B ?

A) 70.955 m B) 76.475 m C) 79.345 m D) 73.825 m

19. In which method of contouring, spot levels are taken along a series of lines laid over the area ?

A) Direct method B) Indirect method
C) Radiation method D) Intersection method

20. A reliable instrument used for setting out a grade contour is

A) Box sextant B) Pentagraph
C) Ceylon ghat tracer D) Substane bar

21. What is the process of turning the telescope in vertical plane about its horizontal axis through 180° ?

A) Transiting B) Swinging C) Centering D) Inverting

22. Which angle is measured clockwise from the previous line to the following line ?

A) Deflection angle B) Direct angle
C) Interior angle D) Bearing angle

23. Value of contour interval adopted for town planning schemes, reservoirs etc.

A) 3 to 5 m B) 2 to 3 m C) 0.5 to 2 m D) 0.2 to 0.5 m

24. Which is the carrier for distance measurement in almost all total stations ?

A) Radio waves B) Infrared rays C) X-rays D) Gamma rays

25. What least angle capable of measuring with best quality total station ?

A) 2 sec B) 3 sec C) 5 sec D) 6 sec

26. What is the maximum safe bearing capacity of black cotton soil in dry condition ?

A) 5 B) 10 C) 15 D) 25

27. What is the name of tool used for setting angle in brick masonry ?
    A) Bevel
    B) Plumb rule
    C) Masons square
    D) 1-meter 4-fold rule

28. Which plaster material used in X-ray rooms to protect the persons working ?
    A) Acoustic plaster
    B) Asbestos cement plaster
    C) Barium plaster
    D) Granite silicon plaster

29. The cracks occur in a centre of a tree and they extend from pith to sapwood in the direction of medullary rays
    A) Star shakes
    B) Radial shakes
    C) Cup shakes
    D) Heart shakes

30. What is the name of the term for hard brownish, unglazed vitrified ceramic material used for architectural ornamentation ?
    A) Porcelain
    B) Terracotta
    C) Earthenware
    D) Stoneware

31. The commonly used retarders are
    A) Plaster of Paris
    B) Gypsum
    C) Ammonium chloride
    D) All of these

32. What is the maximum span for double joist floor ?
    A) 3.6 m
    B) 5 m
    C) 6 m
    D) 7.5 m

33. What is the name of term used for the vertical joints separating the bricks in either length or cross direction ?
    A) Perpends
    B) Lap
    C) Bed
    D) Bed joint

34. What is the mass of 6 mm dia. of steel bar ?
    A) 0.222 kg
    B) 0.302 kg
    C) 0.395 kg
    D) 0.888 kg

35. What is the slope usually given on RCC flat roof ?

A) 1 in 15 B) 1 in 20

C) 1 in 60 D) 1 in 130

36. What is the name of the test to determine the durability or weathering quality of stones ?

A) Impact test B) Smith's test

C) Crushing test D) Crystallization test

37. Which class of brick is used for unimportant situation and for internal walls ?

A) 1st Class brick B) 2nd Class brick

C) 3rd Class brick D) 4th Class brick

38. What is the name suitable for cold weathering concrete ?

A) Hydrophobic cement B) Modified portland cement

C) Extra rapid hardening cement D) High alumina cement

39. Name the sand which passes through a sieve with clear opening of 3.17 mm and used for masonry work.

A) Fine sand B) Coarse sand

C) Gravelly sand D) Mountain sand

40. What is the weight of steel in kg/m^2 ?

A) 7200 B) 7850 C) 11360 D) 8590

41. What will happen when vertical and inclined surface are too thickness painted ?

A) Sagging B) Blistering

C) Flaking D) Bloom

42. What is the name of the treatment that to protect the building against termites is a maintenance treatment open earth around building and treat with chemicals ?

A) Soil treatment B) Structural barriers

C) Post-construction treatment D) Pre-construction treatment

43. Slate is an example of
    A) Sedimentary rock
    B) Metamorphic rock
    C) Igneous rock
    D) Argillaceous rock

44. What is the name of class lime which can be used for structural work such as arches, domes etc. ?
    A) Class a
    B) Class B
    C) Class c
    D) Class d

45. What is the yield strength of HYSD bars ?
    A) 250 N/mm^2
    B) 140 N/mm^2
    C) 415 N/mm^2
    D) 230 N/mm^2

46. The decrease or loss in the value of property due to structural deterioration use, wear and tear is called
    A) Annuity
    B) Capital cost
    C) Rateable value
    D) Depreciation

47. What is the measurement unit for the cornice works in estimation ?
    A) Meter
    B) Square meter
    C) Cubic meter
    D) Cubic feet

48. The estimate prepared while the original sanctioned estimate is exceeding by more than 5 percentage is called
    A) Supplementary estimate
    B) Revised estimate
    C) Extension estimate
    D) Plinth area estimate

49. Printed list of rates of various items of work maintained by the engineering department
    A) Schedule of rates
    B) Govt. rate book
    C) Market rate
    D) Analysis of rate

50. Annual periodic payment for repayment of capital amount invested by a party
    A) Capital cost B) Annuity C) Depreciation D) Outgoings

51. Plastering area taken for a pillar

A) Length × breadth × height
B) Perimeter
C) Section area × height
D) Perimeter × height

52. Forest Conservation Act was passed in the year

A) 1992
B) 1980
C) 1972
D) 2000

53. IS Code used for fire safety is

A) IS 1641 – 1960
B) IS 291 – 1900
C) IS 456
D) IS 1984

54. Plan approved and sanctioned by the competent authority

A) Key plan
B) Site plan
C) Approved plan
D) Sanctioned plan

55. Permissible F.A.R. for the commercial building

A) 2 (Two)
B) 2.5 (Two.Five)
C) 2.8 (Two.Eight)
D) 3.2 (Three.Two)

56. The estimated cost charged to meet the expense of establishment designing, planning, supervision etc. which is of 10 – 15% of the estimated cost

A) Tools and plant cost
B) Work charged establishment cost
C) Complete estimate cost
D) Centage charge

57. Statement of various items of work giving the description of quantities and unit rates where the amount columns are left blank is called

A) Bill of quantities
B) Specification
C) Rough cost estimate
D) Plinth area estimate

58. Diameter of mild steel bars is expressed in

A) mm
B) cm
C) cm^2
D) $\phi \times$ mm

59. Unit of payment for boring holes in iron

A) Per dia
B) Per number
C) Per cm
D) Per quintal

60. Which one is not included in job overhead ?

A) Establishment
B) Losses on advances
C) Amenities of labour
D) Workmans compensation

61. Importance of orientation of building

A) Outdoor projection
B) Indoor modification
C) Aesthetic
D) Reduction of energy bills

62. Maximum covered area for an industrial building

A) 40% of site area
B) 50% of site area
C) 60% of site area
D) 70% of site area

63. Carpet Area

A) Total plot area – circulation area
B) Total circulation area – floor area
C) Total floor area – circulation area
D) Total area of floor – wall area

64. Nominal size bricks needed for $1m^3$ of brick work

A) 500
B) 1000
C) 650
D) 450

65. Process of determining the value of the property or the fair price of property

A) Valuation
B) Fixation
C) Estimation
D) Taxation

66. In which irrigation method, water is supplied to lower level by the action of gravity ?

A) Flow
B) Lift
C) Sprinkler
D) Sub-surface

67. What is the relation between Duty (D), Delta (Δ) and Base period (B) ?

A) $\Delta = (86.4B/D)$
B) $\Delta = (864B/D)$
C) $\Delta = (8.64B/D)$
D) $\Delta = (8640B/D)$

68. What is the first watering before sowing the crop ?

A) Kor watering B) Paleo C) Delta D) Duty

69. Which is called as safety valve of a dam ?

A) Drainage gallery B) Inspection gallery

C) Spill way D) Outlet sluices

70. What is the classification of dam based on use ?

A) Detention B) Gravity C) Rigid D) Buttress

71. When does hydrograph called as unit hydrograph ?

A) 1 cm of runoff from rainfall B) 3 cm of runoff from rainfall

C) 1 mm of runoff from rainfall D) 3 mm of runoff from rainfall

72. Which is the main function of diversion head work of a canal ?

A) To remove silt B) To control floods

C) To store water D) To raise water level

73. Which is the main factor for selection of site for a reservoir ?

A) Maximum runoff B) Maximum percolation

C) Wide opening D) Minimum runoff

74. What is the name of the structure placed in river to increase the depth of water ?

A) Barrage B) Weir C) Notch D) Crest

75. Which element of hydroelectric power plant reduce the water hammer pressure formed in the penstock ?

A) Valves B) Surge tank C) Turbines D) Draft tubes

76. Which canal is also known as ridge canal ?

A) Contour B) Watershed C) Side slope D) Main

77. What is also known as canal fall ?

A) Canal syphon
B) Canal drop
C) Super passage
D) Aqueduct

78. Which cross drainage work is constructed to carry canal below drainage ?

A) Aqueduct
B) Super passage
C) Level crossing
D) Inlet

79. Which of the following is the cause of the property that allows liquid to resist an external force ?

A) Elasticity
B) Compressibility
C) Viscosity
D) Surface tension

80. Barometer is used to measure

A) Pressure in pipes, channel etc.
B) Atmospheric pressure
C) Very low pressure
D) Difference of pressure between two points

81. Which of the following statements is/are correct about units ?

i. Time is a fundamental unit.
ii. In FPS system of units, unit of length is Foot.
iii. Area is a derived unit.

A) Only (i and ii)
B) Only (i and iii)
C) All of the above (i, ii and iii)
D) Only (ii and iii)

82. 2 kilograms is equal to _____ pounds.

A) 4.41
B) 4.14
C) 5.004
D) 4.61

83. What is the base of a triangle having an area of 50 cm^2 and height 100 mm ?

A) 10 mm
B) 10 cm
C) 5 cm
D) 15 mm

84. A wire bend in the form of a circle of radius 35 cm was reshaped to a square. Then what is the length of one side of that square ?

A) 45 cm B) 55 cm C) 35 cm D) 65 cm

85. How many litres of water can be stored in a water tank having length = 1 metre, width = 0.5 metre and height = 0.8 metre ?

A) 100 B) 200 C) 300 D) 400

86. How many spherical balls of radius 1 cm can be made from a sphere of 15 cm radius ?

A) 3375 B) 3475 C) 3575 D) 3275

87. Which of the following statements is/are correct about energy ?

i. Energy of a body is its capacity to do work.

ii. Unit of energy is same as the unit of work.

iii. Energy of one form cannot be transformed into energy of another form.

A) Only (i) B) Only (i and ii)

C) All of the above (i, ii and iii) D) Only (ii and iii)

88. When an external force acts on a material, there is a change in its dimension and shape. This deformation is called

A) Young's modulus B) Modulus of rigidity

C) Stress D) Strain

89. Which of the following statements is/are correct about friction ?

i. Limiting friction is less than rolling friction.

ii. Rolling friction is equal to sliding friction.

iii. Rolling friction is always less than limiting friction.

A) Only (i) B) Only (ii)

C) Only (iii) D) All of the above (i, ii and iii)

90. The rate of change of displacement of a body in motion in a given direction is called

A) Velocity B) Acceleration C) Deceleration D) Momentum

91. What is mechanical advantage of a simple machine ?

A) $\frac{\text{Effort}}{\text{Load}}$ B) $\frac{\text{Load}}{\text{Effort}}$

C) $\frac{\text{Distance moved by the load}}{\text{Distance moved by the effort}}$ D) $\frac{\text{Distance moved by the effort}}{\text{Distance moved by the load}}$

92. The positive bending moment in a beam is often called _____ moment.

A) Polar B) Hogging C) Sagging D) None of these

93. Which of the following statements is/are correct about explode command ?

i. Breaks a compound object into its component objects.

ii. When you start explode command, AutoCAD prompt you to select one or more complex objects.

iii. If objects can't be exploded, AutoCAD displays how many objects could not be exploded at command line.

A) Only (ii and iii) B) Only (i and ii)

C) Only (i and iii) D) All of the above (i, ii and iii)

94. Which among the following command is used to create a region or a polyline from an enclosed area ?

A) BLOCK B) HATCH

C) BOUNDARY D) BSAVE

95. Which of the following statements is/are correct about snap mode ?

i. Restricts cursor movement to specified grid intervals.

ii. Tracks the cursor to increments along polar alignment paths.

iii. Snap mode is toggled using the F7 Key.

A) Only (i and ii) B) Only (i and iii)

C) Only (iii) D) All of the above (i, ii and iii)

96. Which of the following tool is used to connect two objects with an arc with a specified radius ?

A) Scale
B) Fillet
C) Array
D) Rotate

97. Which of the following statements is/are correct about ortho mode ?

i. If ortho mode is enabled, you will only be allowed to draw lines along the UCS axis.
ii. If ortho mode is enabled, you will be able to draw lines at any angle.
iii. To toggle ortho mode on and off, press the F8 key.

A) Only (i and ii)
B) Only (iii)
C) Only (i and iii)
D) All of the above (i, ii and iii)

98. In AutoCAD, the keyboard shortcut Ctrl + 1 is used to

A) Print the sheet
B) Show drawing area only
C) Show properties palette
D) Open Quick Calculator

99. Which of the following command is used to add or edit plotter configuration ?

A) PLOTTER
B) PLOTSTYLE
C) PLOTTERMANAGER
D) PLOT

100. Which of the following in AutoCAD displays the cursor location, drawing tools and tools that affect your drawing environment ?

A) File Menu
B) Status Bar
C) Application Menu
D) Ribbon Panel

Space for Rough Work