

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

23-0005-AB

TEST BOOKLET  
PAPER-II  
ENGINEERING DRAWING

Time Allowed: 1 hr

Maximum Marks: 50

INSTRUCTIONS TO CANDIDATES

Read the instructions carefully before answering the questions: -

1. This Test Booklet consists of 08 (eight) pages and has 50 (fifty) questions.
2. 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.
3. Please note that it is the candidate's responsibility to fill in the Roll Number and other required details carefully and without any omission or discrepancy at the appropriate places in the OMR Answer Sheet. Any omission/discrepancy will render the OMR Answer Sheet liable for rejection.
4. Do not write anything else on the OMR Answer Sheet except the required information. Before you proceed to mark in the OMR Answer Sheet, please ensure that you have filled in the required particulars as per given instructions.
5. Use only Black Ball Point Pen to fill the OMR Answer Sheet.
6. Each question comprises of 04 (four) responses (answers). You are required to select the response which you want to mark on the OMR 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.
7. After you have completed filling in all your responses on the OMR Answer Sheet and the examination has concluded, you should hand over to the Invigilator *only the OMR Answer Sheet*. You are permitted to take the Test Booklet with you.
8. Penalty for wrong answers in case of Multiple Choice based Questions:  
**THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY A CANDIDATE.**
  - (i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, one-third of the marks assigned to the 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 answers happens to be correct and there will be same penalty as above to the 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.

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## ENGINEERING DRAWING

Choose the correct answer for the following questions: (1 x 50 = 50)

1. The primary unit of measurement for engineering drawing and design in the mechanical industries is the:
  - (a) Centimeter
  - (b) meter
  - (c) millimeter
  - (d) all of above
2. The following is not included in the title block of the drawing sheet:
  - (a) Size of sheet
  - (b) sheet number
  - (c) scale
  - (d) Method of projection.
3. A drawing tool is specified by BIS. What is the measurement as per IS of A3 specification drawing sheet?
  - (a) 240 mm x 330 mm
  - (b) 330 mm x 450 mm
  - (c) 210 mm x 297 mm
  - (d) none of these
4. Which of the following instruments is used to measure angle?
  - (a) Set square
  - (b) protractor
  - (c) French curve
  - (d) scale
5. Size D1 of the drawing board refers to \_\_\_\_\_ (l x w x t) mm
  - (a) 700 x 500 x 25
  - (b) 500 x 350 x 150
  - (c) 1500 x 1000 x 25
  - (d) 1000 x 700 x 25
6. Which of the following instrument is used in measuring transfer measurement?
  - (a) Divider
  - (b) Compass
  - (c) Scale
  - (d) French curve
7. A square lamina in isometric projection appears as \_\_\_\_\_.
  - (a) rhombus
  - (b) Triangle
  - (c) Parallelogram
  - (d) All of these
8. There are two main types of projection are:
  - (a) Station-point and Perspective
  - (b) Perspective and Parallel
  - (c) Parallel and Convergent
  - (d) Parallel and Orthographic

9. The projection in isometric view is:
- Diverging
  - Converging
  - Perpendicular to the plane of projection
  - Parallel to the plane of projection
10. The following line is used for the dimension line:
- Short zigzag thin
  - Continuous thick
  - Continuous thin
  - Chain thin line
11. A right regular hexagonal prism in reporting on HP on its base, its top view is a \_\_\_\_\_.
- Pentagon
  - Square
  - Rectangle
  - None of these
12. In electrical drawing, the given symbol is used to indicate a



- Bell
  - Hooter
  - Loud speaker
  - Siren
13. Which type of lines are drawn as continuous narrow free hand lines?
- Centre lines
  - Limits of partial or interrupted views
  - Visible edges
  - None of these
14. The unit of R.F is:
- Cubic centimeter
  - centimeter
  - square centimeter
  - none of these
15. When a point is below H.P and behind V.P, the point is resting in which quadrant?
- First quadrant
  - Second quadrant
  - Third quadrant
  - Fourth quadrant
16. Which of the following position is not possible for a plane?
- Perpendicular to VP and parallel to HP
  - Perpendicular to both HP and VP
  - Perpendicular to HP and parallel to VP
  - parallel to both HP and VP

17. A right regular hexagonal prism in resting on HP on its base, its top view is a \_\_\_\_.
- (a) Pentagon
  - (b) (b)Square
  - (c) Hexagon
  - (d) Rectangle
18. The full form R.F is -
- (a) Representative factor
  - (b) Reducing fraction
  - (c) Representative fraction
  - (d) Reduction factor
19. The following are the methods for drawing isometric views except
- (a) Centre line method
  - (b) Parallel line method
  - (c) Box method
  - (d) Offset method
20. A variety of .....is known as military projection?
- (a) Isometric projection
  - (b) 3-D projection
  - (c) Oblique projection
  - (d) Orthographic projection
21. Isometric projection is reduced volume wise by .....to the actual size.
- (a) 34.13%
  - (b) 54.13%
  - (c) 64.13%
  - (d) 44.13%
22. The size of the letter means the \_\_\_\_ of the letter
- (a) Width
  - (b) Length
  - (c) Thickness
  - (d) Height
23. Auxiliary plane means
- (a) The plane which is inclined at any angle to the principal plane
  - (b) The plane which is horizontal
  - (c) Parallel plane
  - (d) None of these
24. In an isometric sketch of a cube
- (a) All faces are equally distorted
  - (b) Only the depth distance must be reduced
  - (c) The frontal face appears in its true shape
  - (d) None of these
25. The internal angle of regular pentagon is
- (a)  $150^\circ$
  - (b)  $72^\circ$
  - (c)  $120^\circ$
  - (d)  $108^\circ$

26. What is the angle of inclination towards right in Italic Lettering?

- (a)  $15^\circ$
- (b)  $30^\circ$
- (c)  $750^\circ$
- (d) None of these

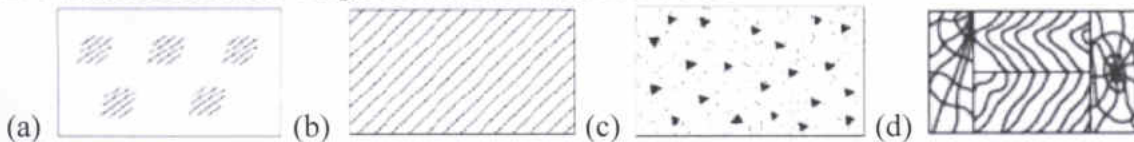
27. The standard heights recommended by BIS SP: 46-2003 are in the progressive ratio of

- (a) Square root 2
- (b) Square root 3
- (c) Square root 4
- (d) Square root 5

28. Which part of the drawing board guides the T-square?

- (a) Above the board
- (b) Bottom the board
- (c) Ebony
- (d) None of these

29. Which of the following convention is used for Wood?



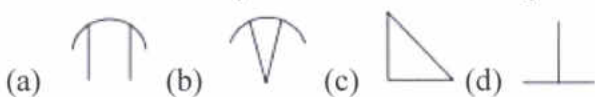
30. What are non-parallel and non-intersecting lines known as?

- (a) Perpendicular line
- (b) Parallel line
- (c) Spiral line
- (d) Skew lines

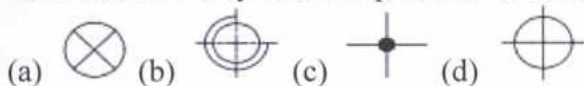
31. These plans, made by the steel fabricator, are assembly drawings for the steel structure:

- (a) Assembly plans
- (b) Erection plans
- (c) Welding plans
- (d) Construction plans

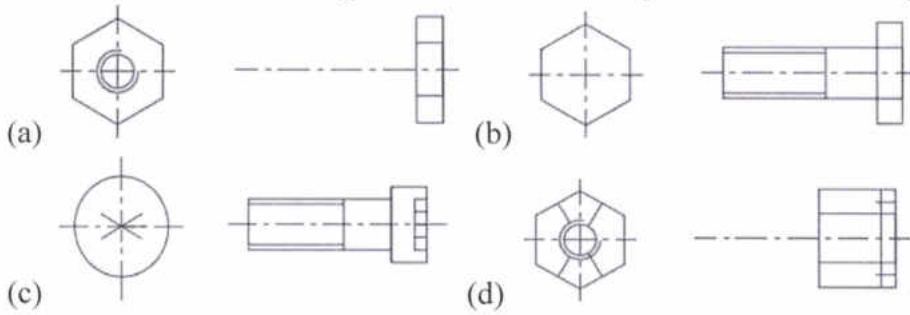
32. Which is the symbol of fillet welded joint?



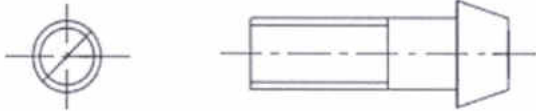
33. Which is the symbolic representation of snap headed rivet?



34. Which of the following is the conventional representation of hexagonal headed bolt?

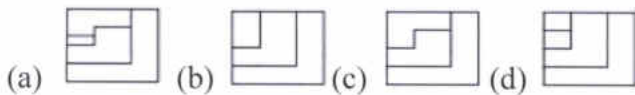
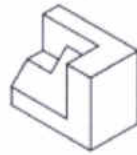


35. What does the following conventional representation represent?



- (a) Cylinder screw pan head type slot
- (a) Countersunk headed screw slot
- (b) Cylindrical screw cross slot
- (c) Oval countersunk screw

36. For the object shown in Figure select the correct front view



37 Width (L) of overlap of sheets is equal to ..... When d is the diameter of a rivet in case of single-riveted lap joint

- (a) 2d
- (b) 3d
- (c) 4d
- (d) 5d

38. The front view of a point is 40 mm above xy and the top view is 50 mm below xy, the position of point is

- (a) 40 mm below HP
- (b) 50 mm above HP
- (c) 40 mm above HP
- (d) 50 mm below HP

39. Which of the following describes the theory of orthographic projection?

- (a) Projectors parallel to each other and parallel to the plane of projection
- (b) Projectors perpendicular to each other and parallel to the plane of projection
- (c) Projectors parallel to each other and perpendicular to the plane of projection
- (d) Projectors parallel to each other and oblique to the plane of projection

40. A 90 mm long line PQ, inclined at  $30^\circ$  to the HP and  $45^\circ$  to the VP has end P 15 mm above HP and 25 mm in front of VP. The other end Q will lie in.
- (a) First angle
  - (b) Third angle
  - (c) Second or fourth angle
  - (d) Any of these
41. Which of the following is true for single stroke inclined lettering?
- (a) Left inclined with slope  $-75^\circ$
  - (b) Right inclined with slope  $75^\circ$
  - (c) Left inclined with slope  $15^\circ$
  - (d) None of these
42. Which grade of pencil is used for drawing arrowheads?
- (a) H
  - (b) 2B
  - (c) HB
  - (d) None of these
43. The hidden parts inside or back side of object while represented in orthographic projection are represented by which line?
- (a) Dashed thin line
  - (b) Continuous thick line
  - (c) Long-break line
  - (d) Continuous thin line
44. The positions of the right side view and front view of an object kept in 1st quadrant and projection are drawn?
- (a) The right side view is above the front view
  - (b) The right side view is below the front view
  - (c) The right side view is left side of the front view
  - (d) The right side view is right side of the front view
45. What do continuous freehand lines indicate?
- (a) Permissible surface treatment
  - (b) Hidden edges
  - (c) Cutting Planes
  - (d) Interrupted views and sections
46. An egg is placed vertical to horizontal plane the top view will be
- (a) Oval
  - (b) Ellipse
  - (c) Circle
  - (d) None of above
47. If an object is placed in 1st quadrant such that one of the surfaces of object is coinciding with both vertical plane and horizontal plane, what is the correct position of views from the following?
- (a) Both side views touch each other
  - (b) The top view and side view touch each other
  - (c) The top view and front touches each other at reference line
  - (d) The top view touches the reference line

48. A pentagonal prism is placed such that its axis is perpendicular to horizontal plane, the top view and front view are
- (a) Pentagon, rectangle respectively
  - (b) Rectangle, triangle respectively
  - (c) Rectangle, rectangle respectively
  - (d) Pentagon, triangle respectively
49. Which type of line is part of a dimension?
- (a) Cutting planes
  - (b) Extension lines
  - (c) Break lines
  - (d) Phantom lines
50. Which of the following drawing tool is not used to set the drawing sheet on the drawing board?
- (a) Drawing clips
  - (b) Divider
  - (c) Drawing pins
  - (d) None of these
-