BK BIRLA CENTRE FOR EDUCATION

SARALA BIRLA GROUP OF SCHOOLS
SENIOR SECONDARY CO-ED DAY CUM BOYS' RESIDENTIAL SCHOOL

PERIODIC TEST-2 (2024)

MARKING SCHEME

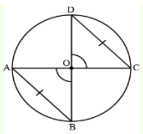
Class : IX
Date : 02 -12-2024

Duration : 1 Hr
Max. Marks : 25

I. Multiple choice questions. 1 mark for each question.

1. SAS [A]
2. 50^0 [C]
3. 40^0 [C]
4. 180^0 [A]
5. 45^0 [D]

6. In Δ BOC and Δ AOD
   BC = AD given ½
   ∠OBC = ∠OAD Each 90^0 ½
   ∠BOC = ∠AOD Vertically opposite angles ½
   Δ BOC ≅ Δ AOD AAS rule
   AO = OB CPCT ½
7. In Δ ADB and Δ ADC ½
   BD = DC given
   AD = AD common ½
   ∠ADB = ∠ADC Each 90^0 ½
   Δ ADB ≅ Δ ADC SAS rule ½
   AB = AC CPCT
   Δ ABC is an Isosceles triangle. ½
8. In ΔAOB and ΔCOD



   OA = OC (Radii of a circle) ½
   OB = OD (Radii of a circle) ½
   AB = CD (Given)
   ∴ ΔAOB≅ ΔCOD (By SSS-criterion of congruence) ½
   ∠AOB=∠COD CPCT ½
9. ∠BEC + $\angle CE$D = 180^0 ½
   $\angle CE$D = 50^0 ½
   $\angle B$DC = $180^0 - (50^0 + 70^0)$ ½

$= 110^0$ ½

10. In ΔAMC and ΔDMB

AM = MB given ½

∠AMC = ∠DMB Vertically opposite angles ½

DM = CM given ½

∴ ΔAMC ≅ ΔDMB (By SAS-criterion of congruence

∠BDM =∠ACM CPCT (i) ½

∠BDC + $\angle ACB$ $= 180^0$ co interior angles ½

∠BDC = 90^0 (right angle) ½

11. AB = AC [Given] …(1)

AB = AD [Given] …(2) ½

∴ AC = AD

In Δ ABC

$\angle B = \angle ACB$ Base angles ½

In Δ ACD

$\angle ACD = \angle ADC$ Base angles ½

In Δ BCD

$\angle B + \angle C + \angle D = 180^0$ ½

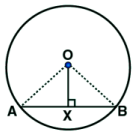
$\angle AC\,B + \angle ACB + \angle ACD + \angle ADC = 180^0$ ½

$2\,(\angle ACB + \angle\,ACD\,) = 180^0$ ½

$(\angle ACB + \angle\,ACD\,) = 90^0$ ½

$\angle BCD = 90^0$ ½

12. Given : A circle with centre 0, OP ⊥ AB



½

To prove : AX = X B

Construction : Join OA and OB.

Proof : In ΔOAX and ΔOBX

OA = OB radii of same circle ½

OX = OX Common ½

∠OXA=∠OXB Each 90^0 ½

Δ OXA ≅ Δ OXB RHS rule ½

AX = X B CPCT ½

13. ∠AOB + ∠BOC = $60^0 + 30^0$ ½

∠AOC $= 90^0$ ½

$\angle ADB = \frac{1}{2}$ X ∠AOC ½

$= \frac{1}{2}$ X 90^0 1

∠ADB $= 45^0$ ½

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