HEMATOLOGY

PAPER-III

HEMAT/D/18/48/III

Time: 3 hours
Max. Marks:100

Important Instructions:

- *Attempt all questions in order.*
- *Each question carries 10 marks.*
- *Read the question carefully and answer to the point neatly and legibly.*
- *Do not leave any blank pages between two answers.*
- *Indicate the question number correctly for the answer in the margin space.*
- *Answer all the parts of a single question together.*
- *Start the answer to a question on a fresh page or leave adequate space between two answers.*
- *Draw table/diagrams/flowcharts wherever appropriate.*

Write short notes on:

1. A 28-year-old lady, in her first pregnancy, presents with acute onset pain and swelling of left leg.   5+5
    a) What will be your diagnostic approach?
    b) How will you counsel and manage her at this point?

2. Myeloproliferative Neoplasms (MPN):   4+4+2
    a) How has the classification changed over the years?
    b) What is the clinical significance of the mutations detected in these neoplasms?
    c) Has targeted therapy achieved its goal in MPN?

3. An 18-year-old boy has presented to your OPD on crutches with swollen knee joints, shortening of left lower limb and fixed flexion deformity. His maternal cousin died following a minor street fight.   4+3+3
    a) What would be your diagnostic approach?
    b) How would you objectively assess his functional status?
    c) How would you plan to rehabilitate this boy and improve his quality of life?

4. Chronic Myeloid Leukemia(CML) has been transformed into a chronic disease like diabetes mellitus.   4+4+2
    a) Do you agree with this statement and why?
    b) How the disease biology has contributed to the success of treatment of CML?
    c) Write briefly about TFR in relation to CML.

5. Screening coagulation tests: 4+3+3
    a) Enumerate the tests and describe the algorithm for screening?
    b) Should they be performed routinely prior to any major surgery?
    c) Write down the algorithm for diagnosis if PT and APTT both are prolonged.

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6. Monoclonal antibodies in Hematology: 4+3+3
   a) Enumerate the antibodies incorporated as a standard of care for management of lymphoproliferative disorders.
   b) What are the class-related side effects which one should be aware of?
   c) Why do the antibodies not always work in spite of being targeted?

7. Cytokine Release Syndrome: 3+4+3
   a) Why does it occur?
   b) How to diagnose it early and stratify it?
   c) How do you manage the patients with cytokine release syndrome?

8. Graft versus Leukemia(GVL) effect vs Graft versus host disease(GVHD): 3+4+3
   a) Do they go hand in hand in an individual post transplantation?
   b) How to diagnose and monitor GVHD and GVL?
   c) Techniques adopted for increasing GVL and decreasing GVHD?

9. Alternative donors for allogeneic hematopoietic stem cell transplantation: 2+4+4
   a) Why do we need alternative donors in India today?
   b) What is the feasibility of Matched Unrelated Donor (MUD) transplants today?
   c) What is your opinion regarding haploidentical transplantation in India today?

10. Next generation sequencing (NGS) for hematological malignancies 3+4+3
    a) Does it provide more information to help the clinician in managing the disorders?
    b) What could be an ideal strategy for incorporating the technology in the current standard of care?
    c) What are the problems in interpreting NGS data today?

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